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TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	4	APR 04	STN AnaVist $500 visualization usage credit offered
NEWS	5	MAY 10	CA/CAplus enhanced with 1900-1906 U.S. patent records
NEWS	6	MAY 11	KOREAPAT updates resume
NEWS	7	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS	8	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAplus and USPATFULL/USPAT2
NEWS	9	MAY 30	The F-Term thesaurus is now available in CA/CAplus
NEWS	10	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS	11	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS	12	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS	13	JUl 11	CHEMSAFE reloaded and enhanced
NEWS	14	JUl 14	FSTA enhanced with Japanese patents
NEWS	15	JUl 19	Coverage of Research Disclosure reinstated in DWPI
NEWS	16	AUG 09	INSPEC enhanced with 1898-1968 archive

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:25:08 ON 10 AUG 2006

=> file reg

McIntosh

10/781,305

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 11:25:24 ON 10 AUG 2006
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2
DICTIONARY FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

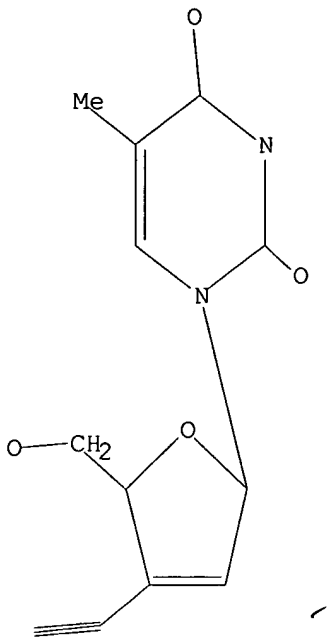
REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10781305.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



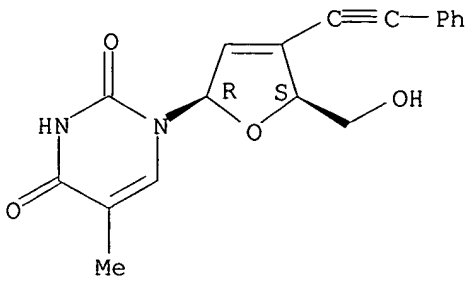
- searched elected species w/ ethynyl group in wrong position - should have been in 4' position, not 3' position - researched @ 4' position

Structure attributes must be viewed using STN Express query preparation.

```
=> s l1 sss sam
SAMPLE SEARCH INITIATED 11:25:41 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       13 TO ITERATE

100.0% PROCESSED       13 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           44 TO      476
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 11:25:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      271 TO ITERATE

100.0% PROCESSED      271 ITERATIONS                               2 ANSWERS
SEARCH TIME: 00.00.01

L3            2 SEA SSS FUL L1

=> d l3

L3   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   439598-62-6  REGISTRY
ED   Entered STN:  19 Jul 2002
CN   2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-4-
     (phenylethynyl)-2-furanyl]-5-methyl- (9CI)  (CA INDEX NAME)
```

FS STEREOSEARCH
MF C18 H16 N2 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

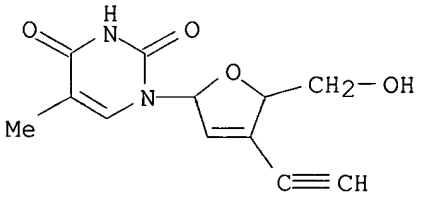


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d l3 2

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2006 ACS on STN
RN 128201-28-5 REGISTRY
ED Entered STN: 13 Jul 1990
CN Thymidine, 2',3'-didehydro-3'-deoxy-3'-ethynyl- (9CI) (CA INDEX NAME)
MF C12 H12 N2 O4
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	170.74	170.95

FILE 'HCAPLUS' ENTERED AT 11:26:11 ON 10 AUG 2006

FILE COVERS 1907 - 10 Aug 2006 VOL 145 ISS 7
FILE LAST UPDATED: 9 Aug 2006 (20060809/ED)

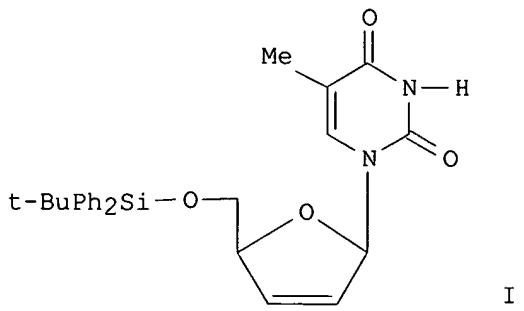
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

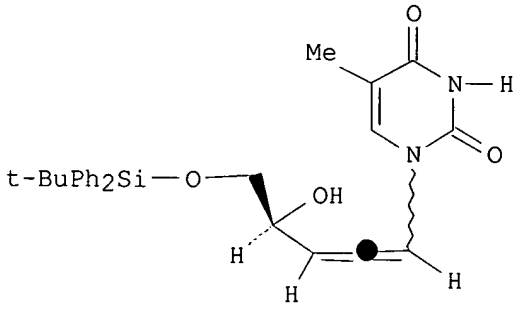
=> s l3
L4 2 L3

=> d bib abs hitstr 1-2 l4

L4 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:312323 HCAPLUS
DN 137:63412
TI Simple Entry to 3'-Substituted Analogues of Anti-HIV Agent Stavudine Based on an Anionic O → C Stannyl Migration
AU Kumamoto, Hiroki; Tanaka, Hiromichi
CS School of Pharmaceutical Sciences, Showa University, Shinagawa-ku, Tokyo, 142-8555, Japan
SO Journal of Organic Chemistry (2002), 67(11), 3541-3547
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:63412
GI



I



II

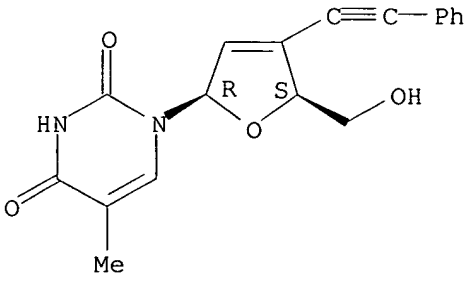
AB Reaction of 5'-O-protected derivs. of the anti-HIV agent stavudine (d4T) with LTMP was investigated with the aim to lithiate the vinylic hydrogens (H-3' and H-2'). When the lithiation of the 5'-O-tert-butyldiphenylsilyl derivative I was carried out in the presence of HMPA, an anionic silyl migration took place to give the 3'-C-silylated product II. The stannyl version of this reaction was found to be also possible, which has disclosed a highly simple entry to the d4T analogs variously substituted at the 3'-position by manipulating the 3'-C-stannyl d4T as a common intermediate.

IT 439598-62-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of anti-HIV agent stavudine analogs based on lithiation and anionic stannyl migration)

RN 439598-62-6 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-4-(phenylethynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

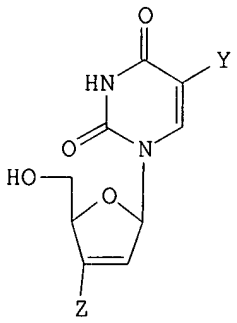


RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1990:459782 HCAPLUS
DN 113:59782
TI Preparation of pyrimidine nucleoside analogs as antivirals
IN Lee, Moses Nam Fong
PA Can.
SO Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 348170	A2	19891227	EP 1989-306259	19890621
	EP 348170	A3	19901205		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 02104586	A2	19900417	JP 1989-156925	19890621
PRAI	US 1988-209570	A	19880621		

OS MARPAT 113:59782
GI

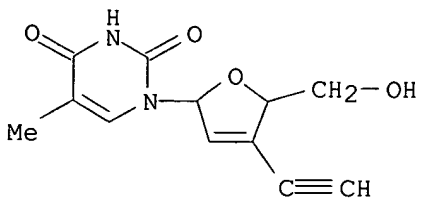


I

AB The title compds. (I; Y = H, alkyl; Z = azido, triazolyl, cyano, etc.) were prepared 1-(2',3'-Epoxy-5'-O-trityl-β-D-lyxofuranosyl)thymine (preparation given) was treated with NaN3 and the resulting 1-(3'-azido-3'-deoxy-5'-tritylarabinosyl)thymine esterified with MeSO2Cl to give, after elimination reaction in EtOH containing NaOEt and deprotection, I (Y = Me, Z = azido) (II). In a test where T4 lymphocytes exposed to HIV were incubated at 37° in a 5% CO2 atmosphere for 6-7 days, II showed an IC50 of >100 μg/mL.

IT 128201-28-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as antiviral)

RN 128201-28-5 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-3'-ethynyl- (9CI) (CA INDEX NAME)


H
N
O
O
N
O
CH2—OH
Me
C≡CH

10/781,305

Connecting via Winsock to STN

elected species

Welcome to STN International! Enter x:x

LOGINID:ssspta1600txm

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 11:39:17 ON 10 AUG 2006
FILE 'HCAPLUS' ENTERED AT 11:39:17 ON 10 AUG 2006
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.81	188.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.50	-1.50

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	17.81	188.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.50	-1.50

FILE 'REGISTRY' ENTERED AT 11:39:30 ON 10 AUG 2006
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STRUCTURE FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2
DICTIONARY FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>

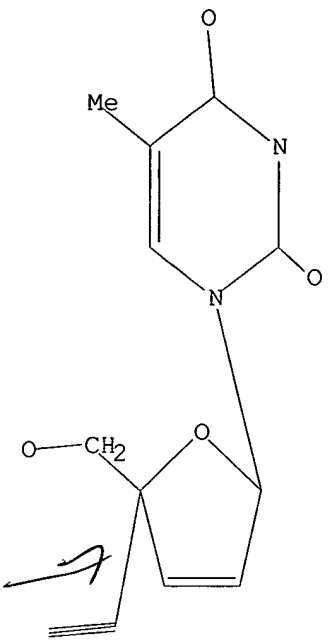
McIntosh

10/781,305

Uploading C:\Program Files\Stnexp\Queries\10781305a.str

L5 STRUCTURE UPLOADED

=> d l5
L5 HAS NO ANSWERS
L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l5 sss sam
SAMPLE SEARCH INITIATED 11:39:49 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 7 TO ITERATE

100.0% PROCESSED 7 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 7 TO 298
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s l5 full
FULL SEARCH INITIATED 11:39:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 112 TO ITERATE

100.0% PROCESSED 112 ITERATIONS 10 ANSWERS
SEARCH TIME: 00.00.01

L7 10 SEA SSS FUL L5

McIntosh

```
=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   166.94     355.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -1.50

FILE 'HCAPLUS' ENTERED AT 11:40:04 ON 10 AUG 2006
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FILE COVERS 1907 - 10 Aug 2006  VOL 145 ISS 7
FILE LAST UPDATED: 9 Aug 2006  (20060809/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s l7
L8            9 L7

=> d bib abs hitstr 1-9 l8

L8   ANSWER 1 OF 9  HCAPLUS  COPYRIGHT 2006 ACS on STN
AN   2006:451111  HCAPLUS
DN   145:124802
TI   Nucleophilic Substitution at the 4'-Position of Nucleosides: New Access to
     a Promising Anti-HIV Agent 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine
AU   Haraguchi, Kazuhiro; Sumino, Masanori; Tanaka, Hiromichi
CS   School of Pharmaceutical Sciences, Showa University, Tokyo, 142-8555,
     Japan
SO   Journal of Organic Chemistry (2006), 71(12), 4433-4438
     CODEN: JOCEAH; ISSN: 0022-3263
PB   American Chemical Society
DT   Journal
LA   English
GI
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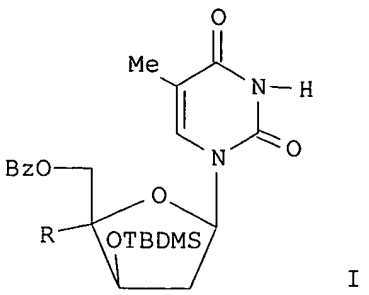


I

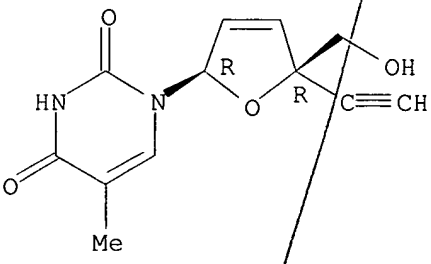
AB For the synthesis of 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine (4'-Ed4T), a recently reported promising anti-HIV agent, a new approach was developed. Since treatment of 1-(2,5-dideoxy-β-L-glycero-pent-4-enofuranosyl)thymine with Pb(OBz)4 allowed the introduction of the 4'-benzoyloxy leaving group, nucleophilic substitution at the 4'-position became feasible for the first time. Thus, reaction between the 4'-benzoyloxy derivative I (R = OBz) and Me3SiC.tplbond.CAl(Et)Cl as a nucleophile led to the isolation of the desired 4'-"down"-ethynyl derivative I (R = C.tplbond.C-SiMe3) stereoselectively in 62% yield. As an application of this approach, other 4'-substituted nucleosides, such as the 4'-allyl I (R = allyl) and 4'-cyano derivs., were synthesized using organosilicon reagents. In these instances, pre-treatment of I (R = OBz) with MeAlCl2 was necessary.

IT 634907-30-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(nucleophilic substitution at 4'-position of nucleosides as new access to promising HIV agent 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine)

RN 634907-30-5 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:986427 HCAPLUS

DN 143:318373

TI 4'-Ethynylstavudine (4'-Ed4T) has potent anti-HIV-1 activity with reduced toxicity and shows a unique activity profile against drug-resistant mutants

AU Tanaka, Hiromichi; Haraguchi, Kazuhiro; Kumamoto, Hiroki; Baba, Masanori; Cheng, Yung-Chi

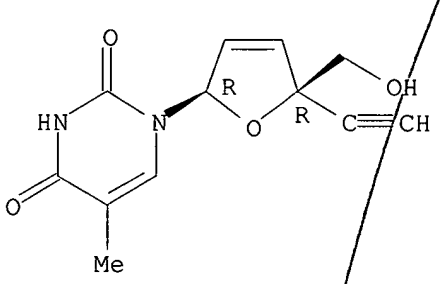
CS School of Pharmaceutical Sciences, Showa University, Tokyo, Japan

SO Antiviral Chemistry & Chemotherapy (2005), 16(4), 217-221
CODEN: ACCHEH; ISSN: 0956-3202
PB International Medical Press
DT Journal
LA English

AB A nucleoside analog 4'-ethynylstavudine (4'-Ed4T) was recently synthesized during chemical studies directed towards the development of a new route to 4'-carbon-substituted nucleosides. This compound was more anti-HIV-1 active than the parent compound stavudine (d4T) and much less toxic to various cells and also to mitochondrial DNA synthesis. It became apparent that 4'-Ed4T is a better substrate for human thymidine kinase than d4t, and very much more resistant to catabolism by thymidine phosphorylase. The study of 4'-Ed4T against various drug-resistant HIV-1 mutants has disclosed its unique activity profile.

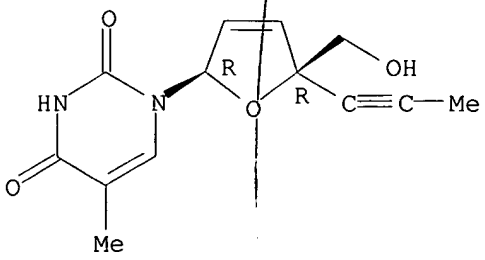
IT 634907-30-5
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethynylstavudine has potent anti-HIV-1 activity with reduced toxicity and shows unique activity profile against drug-resistant mutants)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 717913-88-7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethynylstavudine has potent anti-HIV-1 activity with reduced toxicity and shows unique activity profile against drug-resistant mutants)
RN 717913-88-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

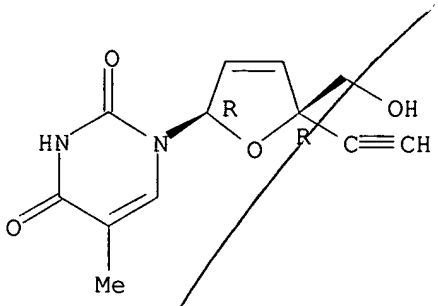


RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:714283 HCAPLUS
DN 143:339014
TI Anti-human immunodeficiency virus type 1 activity and resistance profile of 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine in vitro
AU Nitanda, Takao; Wang, Xin; Kumamoto, Hiroki; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Cheng, Yung-Chi; Baba, Masanori
CS Division of Antiviral Chemotherapy, Center for Chronic Viral Diseases, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, 890-8544, Japan
SO Antimicrobial Agents and Chemotherapy (2005), 49(8), 3355-3360
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine (4'-Ed4T) has been identified as a novel nucleoside analog with potent and selective anti-human immunodeficiency virus type 1 (HIV-1) activity and weak cytotoxicity in cell cultures. 4'-Ed4T proved to be 5- to 10-fold more active than its structurally related compound, stavudine (d4T). However, the drug resistance profile of 4'-Ed4T was different from those of d4T and other existing HIV-1 nucleoside reverse transcriptase inhibitors (NRTIs). Approx. 6- to 11-fold decreases in susceptibility to 4'-Ed4T were observed for HIV-1 carrying NRTI-associated mutations (D67N, K70R, T215F, and K219Q) or the lamivudine (3TC)-resistant mutation M184V. In contrast, the susceptibility of the virus carrying the K65R mutation or the multidrug-resistant mutation with the Q151M complex (A62V, V75I, F77L, F116Y, and Q151M) was not altered. Furthermore, the activity of 4'-Ed4T appeared to be enhanced in the presence of K103N, a major nonnucleoside reverse transcriptase inhibitor-resistant mutation. Although 4'-Ed4T was 4.5- to 17.5-fold less active against multidrug-resistant clin. isolates than against a reference strain isolated from a treatment-naive patient, it was still inhibitory to these isolates at low concns. Anal. of 4'-Ed4T-resistant HIV-1 obtained through in vitro selection revealed that the virus was also resistant to 3TC and had two amino acid mutations (P119S and T165A) in addition to the M184V mutation. Since 4'-Ed4T has increased anti-HIV-1 activity, decreased cytotoxicity, and a different resistance profile, it should be considered for further development as a new member of NRTIs.
IT 634907-30-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV1 activity and resistance profile of didehydrodeoxyethynylthymidine in vitro)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

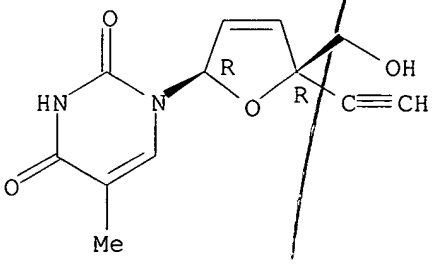
Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:351348 HCAPLUS
DN 144:51794
TI Synthesis of (±)-4'-ethynyl and 4'-cyano carbocyclic analogs of stavudine (d4T)
AU Kumamoto, Hiroki; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, Ginger E.; Cheng, Yung-Chi; Kato, Keisuke
CS Pharmaceutical Sciences, Showa University, Tokyo, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2005), 24(2), 73-83
CODEN: NNNAFY; ISSN: 1525-7770
PB Taylor & Francis, Inc.
DT Journal
LA English
OS CASREACT 144:51794
AB The synthesis of (±)-4'-ethynyl (I) and 4'-cyano (II) carbocyclic analogs of the anti-HIV agent stavudine (d4T) is reported. The carbocyclic unit was constructed from readily available β-keto ester. The ethynyl or cyano group of I and II were prepared, after the introduction of thymine base, by manipulation of the ester function. Evaluation of the anti-HIV activity of I and II was also carried out, but ultimately did not inhibit the virus.
IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(synthesis and anti-HIV activity of (±)-4'-ethynyl and 4'-cyano carbocyclic nucleoside stavudine analogs)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

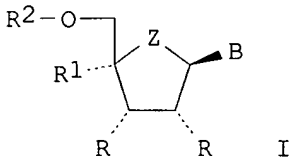


RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

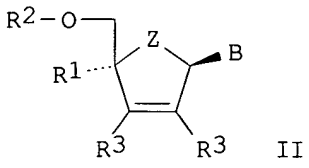
L8 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:701799 HCAPLUS
DN 141:225774
TI Preparation of 2',3'-dideoxy and 2',3'-didehydro nucleoside analogs as prodrugs for treating viral infections, most notably HIV
IN Cheng, Yung-chi; Tanaka, Hiromichi; Baba, Masanori
PA USA
SO U.S. Pat. Appl. Publ., 45 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004167096	A1	20040826	US 2004-781305	20040218
AU 2004260630	A1	20050210	AU 2004-260630	20040218
CA 2514466	AA	20050210	CA 2004-2514466	20040218
WO 2005011709	A1	20050210	WO 2004-US4713	20040218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
BR 2004007374	A	20060110	BR 2004-7374	20040218
EP 1653976	A1	20060510	EP 2004-775776	20040218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1777432	A	20060524	CN 2004-80010529	20040218
PRAI US 2003-448554P	P	20030219		
WO 2004-US4713	W	20040218		

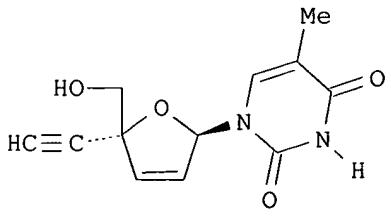
OS CASREACT 141:225774; MARPAT 141:225774
GI



I



II



III

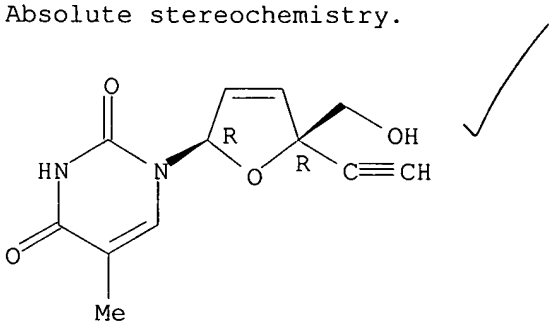
AB Nucleosides I, wherein B is nucleobase; Z is O or CH2; R is H, OH, halo, alkyl substituents; R1 can be H, Me, alkenyl, alkynyl; R2 is H, acyl, alkyl, ether, phosphoethers; and 2',3'-didehydro nucleosides II where Z is O; and R3 can alkyl, alkenyl, alkynyl, halo, hydroxy, were prepared as prodrugs and antiviral agents. Thus, the synthesized 2',3'-dideoxy and didehydro nucleoside analogs were tested as potential antiviral, anti-HIV and anti-infective prodrugs as independent agents, or in combination with other agents. Specifically, didehydro nucleoside III was prepared and tested in vitro as potent anti-HIV-1 agent (EC50 = 0.25 ± 0.14) and as well less toxic (ID50 >256) as D4T, therefor has the potential as a new anti-HIV drug.

IT 634907-30-5P 717913-88-7P 717913-89-8P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of 2',3'-dideoxy and didehydro nucleoside analog and their evaluation as antiviral, anti-HIV and anti-infective prodrugs)

RN 634907-30-5 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

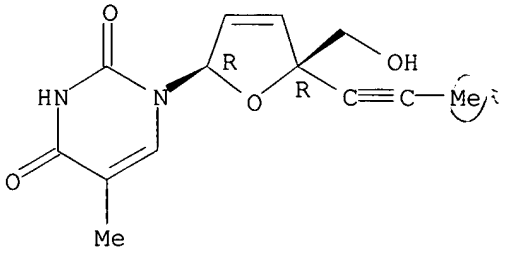
Absolute stereochemistry.



RN 717913-88-7 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

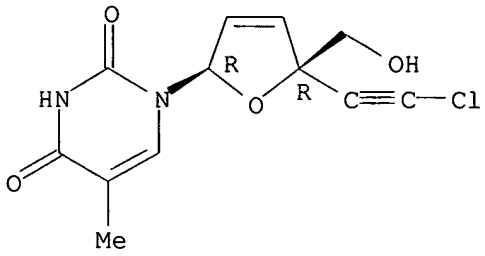
Absolute stereochemistry.



RN 717913-89-8 HCAPLUS

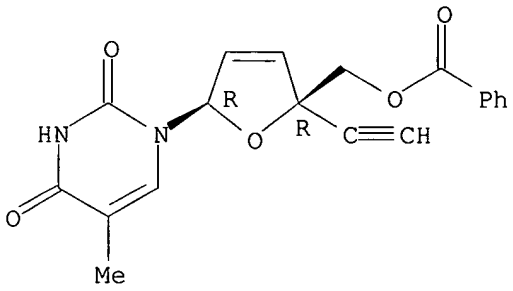
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-(chloroethynyl)-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 744217-17-2P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of 2',3'-dideoxy and didehydro nucleoside analog and their evaluation as antiviral, anti-HIV and anti-infective prodrugs)
RN 744217-17-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



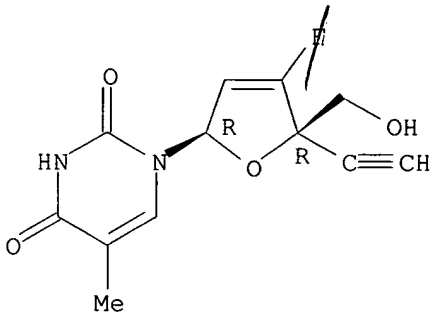
L8 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:641088 HCAPLUS
DN 141:296237
TI Synthesis of 3'-Fluoro-2',3'-dideoxy-2',3'-didehydro-4'-ethynyl-D- and -L-furanosyl Nucleosides
AU Chen, Xin; Zhou, Wen; Schinazi, Raymond F.; Chu, Chung K.
CS College of Pharmacy, University of Georgia, Athens, GA, 30602, USA
SO Journal of Organic Chemistry (2004), 69(18), 6034-6041
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:296237
AB An efficient procedure has been developed for the synthesis of 3'-fluoro-2',3'-dideoxy-2',3'-didehydro-4'-ethynyl D- and L-furanosyl nucleosides starting from 2,3-O-isopropylidene-D-glyceraldehyde. The key intermediate 1-O-benzoyl-3E-fluoro-3,4-unsatd.-5,6-di(tert-butyldimethylsilyloxy)-2-hexanone was obtained in nine steps with the overall yield of 22%. This α,β-unsatd. ketone was then treated with ethynylmagnesium bromide in a typical Grignard reaction procedure to afford two intermediates, which after deprotection, oxidation, and acetylation gave the corresponding 4-ethynyl-substituted D- and L-sugar moieties. A series of D- and L-pyrimidine and purine nucleosides were prepared by the coupling of the sugar moieties with various silyl-protected

bases. The anomeric mixts. were obtained after condensation. After separation, the β-isomers were further deprotected to yield the target nucleosides. All the newly synthesized 4'-substituted nucleosides were tested for their activities against HIV, among which the D-adenine derivative showed moderate anti-HIV activity (EC50 = 25.1 μM) without significant cytotoxicity.

IT 765311-83-9P 765311-92-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)

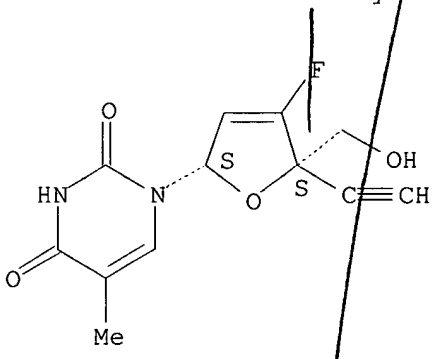
RN 765311-83-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 765311-92-0 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

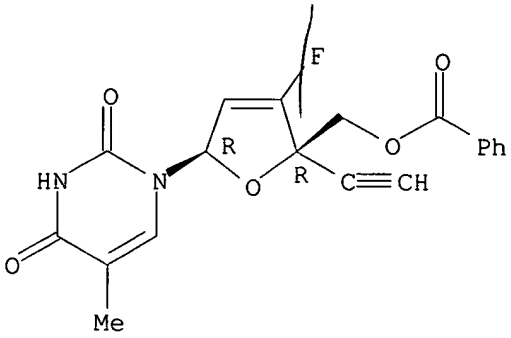
Absolute stereochemistry. Rotation (+).



IT 765311-77-1P 765311-86-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)

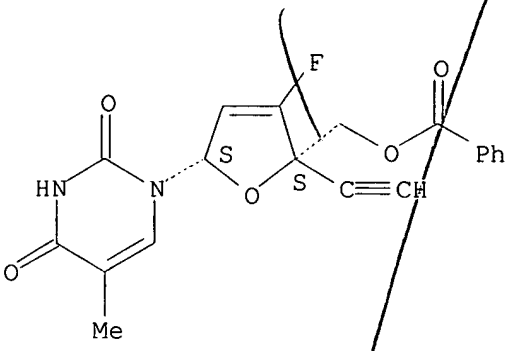
RN 765311-77-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-ethynyl-3'-fluoro-, 5'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



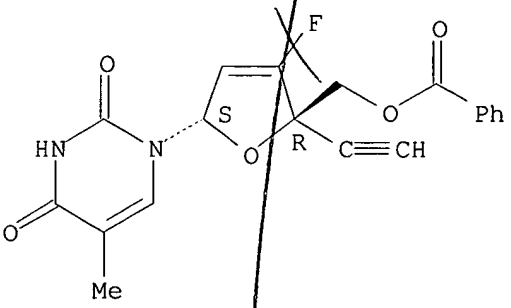
RN 765311-86-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



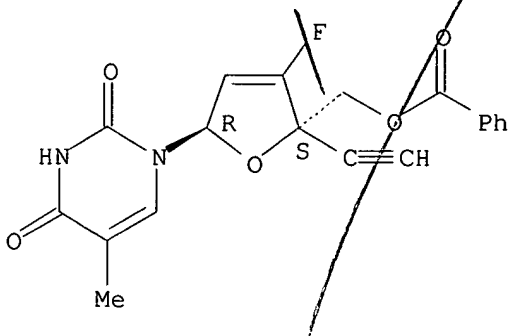
IT 765311-79-3P 765311-88-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)
RN 765311-79-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 765311-88-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

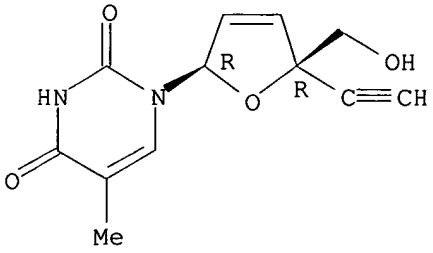
Absolute stereochemistry. Rotation (-).



RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:393067 HCAPLUS
DN 141:350346
TI Synthesis and Anti-HIV Activity of 4'-Cyano-2',3'-didehydro-3'-deoxythymidine
AU Haraguchi, Kazuhiro; Itoh, Yoshiharu; Takeda, Shingo; Honma, Yosuke; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, Ginger E.; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, Shinagawa-ku, Tokyo, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2004), 23(4), 647-654
CODEN: NNNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
OS CASREACT 141:350346
AB A new anti-HIV agent 4'-cyano-2',3'-didehydro-3'-deoxythymidine was synthesized by allylic substitution of the 3',4'-unsatd. nucleoside, having a leaving group at the 2'-position, with cyanotrimethylsilane in the presence of SnCl4. Evaluation of the anti-HIV activity showed that this compound is much less potent than the recently reported 2',3'-didehydro-3'-deoxy-4'-(ethynyl)thymidine.
IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



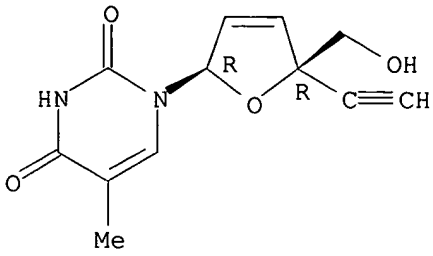
10/781,305

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:374658 HCAPLUS
DN 141:99075
TI Novel 4'-substituted stavudine analog with improved anti-human immunodeficiency virus activity and decreased cytotoxicity
AU Dutschman, Ginger E.; Grill, Susan P.; Gullen, Elizabeth A.; Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi; Baba, Masanori; Cheng, Yung-Chi
CS Department of Pharmacology, School of Medicine, Yale University, New Haven, CT, 06520, USA
SO Antimicrobial Agents and Chemotherapy (2004), 48(5), 1640-1646
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB The antiviral drug 2',3'-didehydro-3'-deoxythymidine (D4T; also know as stavudine and Zerit), which is used against human immunodeficiency virus (HIV), causes delayed toxicity (peripheral neuropathy) in long-term use. After examining a series of 2',3'-didehydro-3'-deoxy-4'-substituted thymidine (4'-substituted D4T) analogs, 4'-ethynyl D4T was found to have a fivefold better antiviral effect and to cause less cellular and mitochondrial toxicity than D4T. The antiviral activity of this compound can be reversed by dThd but not by dCyd. The compound acted synergistically with β-L-2',3'-deoxy-3'-thiacytidine (also known as lamivudine) and β-L-2',3'-dideoxy-2',3'-didehydro-5-fluorocytidine (also known as elvucitabine) and additively with 2',3'-dideoxyinosine (also known as didanosine and Videx) and 3'-azido-3'-deoxythymidine (also known as Retovir and zidovudine) against HIV. 4'-Ethynyl D4T is phosphorylated by purified human thymidine kinase 1 (TK-1) from CEM cells with a faster relative Vmax and a lower Km value than D4T. The efficiency of TK-1 in the phosphorylation of 4'-ethynyl D4T is fourfold better than that of D4T. While D4T is broken down by the catabolic enzyme thymidine phosphorylase, the level of breakdown of 4'-ethynyl D4T was below detection. Since 4'-ethynyl D4T has increased anti-HIV activity and decreased toxicity and interacts favorably with other currently used anti-HIV drugs, it should be considered for further development as an anti-HIV drug.
IT 634907-30-5 717913-88-7, 2',3'-Didehydro-3'-deoxy-4'-methylethynylthymidine 717913-89-8, 2',3'-Didehydro-3'-deoxy-4'-chloroethynylthymidine
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(4'-substituted stavudine analog with improved anti-HIV activity and decreased cytotoxicity)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

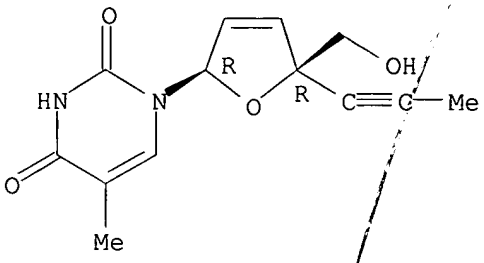
Absolute stereochemistry.

McIntosh



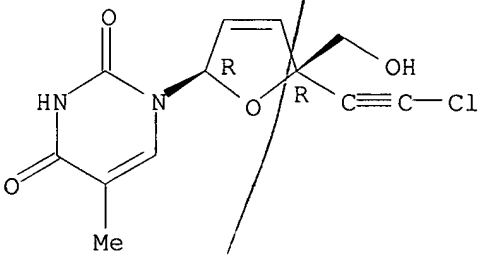
RN 717913-88-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 717913-89-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-(chloroethynyl)-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:795099 HCAPLUS
DN 140:42413
TI Synthesis of a highly active new anti-HIV agent 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine
AU Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, G. E.; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, 1-5-8 Hatanodai, Shinagawa-ku, Tokyo, 142-8555, Japan
SO Bioorganic & Medicinal Chemistry Letters (2003), 13(21), 3775-3777
CODEN: BMCLE8; ISSN: 0960-894X

11/3/2003
bad date

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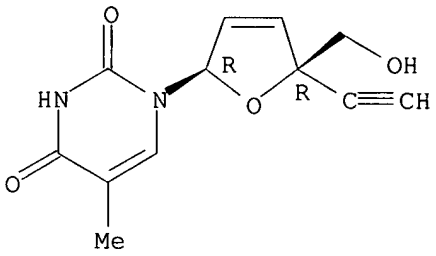
10/781,305

PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 140:42413
AB Compds. having Me, vinyl, and ethynyl groups at the 4'-position of stavudine (d4T: 2',3'-didehydro-3'-deoxythymidine) were synthesized. The compds. were assayed for their ability to inhibit the replication of HIV in cell culture. The 4'-ethynyl analog was found to be ten times more potent and less toxic than the parent compound stavudine.
IT 634907-30-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and anti-HIV structure activity anal. of 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine analogs)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

elected species is OK

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Search for Genus of elected group

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal600txm

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 12:03:52 ON 10 AUG 2006
FILE 'HCAPLUS' ENTERED AT 12:03:52 ON 10 AUG 2006
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	51.05	406.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.75	-8.25

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	51.05	406.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.75	-8.25

FILE 'REGISTRY' ENTERED AT 12:04:00 ON 10 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2
DICTIONARY FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>

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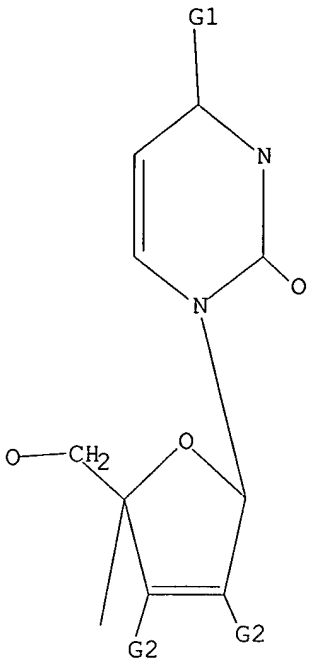
10/781,305

Uploading C:\Program Files\Stnexp\Queries\10781305b.str

L9 STRUCTURE UPLOADED

=> d l9
L9 HAS NO ANSWERS
L9 STR



G1 O,NH

G2 H,Cl,Br,F,I

Structure attributes must be viewed using STN Express query preparation.

=> s l9 sss sam
SAMPLE SEARCH INITIATED 12:04:22 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 60 TO ITERATE

100.0% PROCESSED 60 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 736 TO 1664
PROJECTED ANSWERS: 3 TO 163

L10 3 SEA SSS SAM L9

=> d scan 1-3 l10
'1-3' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

L10 3 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-5-methyl- (9CI)

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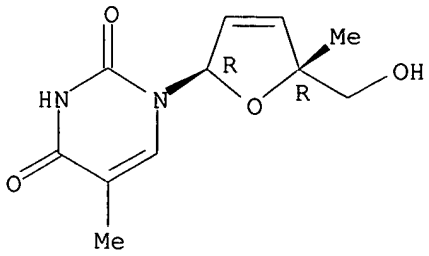
10/781,305

MF C11 H14 N2 O4

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)

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OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

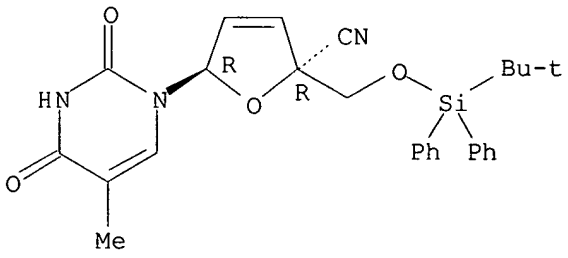
The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L10 3 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2R,5R)-(9CI)
MF C27 H29 N3 O4 Si

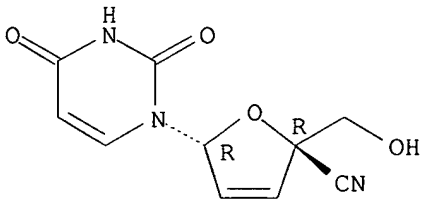
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L10 3 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R-cis)- (9CI)
MF C10 H9 N3 O4

Absolute stereochemistry.



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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s l9 full
FULL SEARCH INITIATED 12:05:01 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1273 TO ITERATE

100.0% PROCESSED 1273 ITERATIONS 64 ANSWERS
SEARCH TIME: 00.00.01

L11 64 SEA SSS FUL L9

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	167.38	574.13

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-8.25

FILE 'HCAPLUS' ENTERED AT 12:05:07 ON 10 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 10 Aug 2006 VOL 145 ISS 7
FILE LAST UPDATED: 9 Aug 2006 (20060809/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l11
L12 24 L11

=> d bib abd hitstr 1-24 l12
'ABD' IS NOT A VALID FORMAT FOR FILE 'HCAPLUS'

The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE

```
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
              containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field
codes.  For a list of the display field codes, enter HELP DFIELDS at
an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
TI,IND; TI,SO.  You may specify the format fields in any order and the
information will be displayed in the same order as the format
specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR,
FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC
to view a specified Accession Number.
ENTER DISPLAY FORMAT (BIB):cancel
'CANCEL' IS NOT A VALID FORMAT FOR FILE 'HCAPLUS'
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The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
SCAN must be entered on the same line as the DISPLAY,
e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

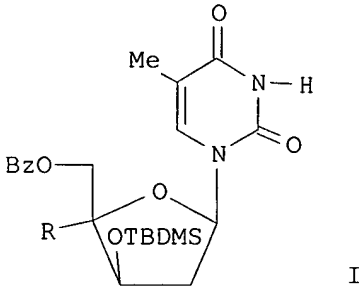
To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC

to view a specified Accession Number.
ENTER DISPLAY FORMAT (BIB):end

=> d bib abs hitstr 1-24 l12

L12 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2006:451111 HCAPLUS
DN 145:124802
TI Nucleophilic Substitution at the 4'-Position of Nucleosides: New Access to a Promising Anti-HIV Agent 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine
AU Haraguchi, Kazuhiro; Sumino, Masanori; Tanaka, Hiromichi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142-8555, Japan
SO Journal of Organic Chemistry (2006), 71(12), 4433-4438
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
GI



I

AB For the synthesis of 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine (4'-Ed4T), a recently reported promising anti-HIV agent, a new approach was developed. Since treatment of 1-(2,5-dideoxy-β-L-glycero-pent-4-enofuranosyl)thymine with Pb(OBz)4 allowed the introduction of the 4'-benzoyloxy leaving group, nucleophilic substitution at the 4'-position became feasible for the first time. Thus, reaction between the 4'-benzoyloxy derivative I (R = OBz) and Me3SiC.tplbond.CAl(Et)Cl as a nucleophile led to the isolation of the desired 4'-"down"-ethynyl derivative I (R = C.tplbond.C-SiMe3) stereoselectively in 62% yield. As an application of this approach, other 4'-substituted nucleosides, such as the 4'-allyl I (R = allyl) and 4'-cyano derivs., were synthesized using organosilicon reagents. In these instances, pre-treatment of I (R = OBz) with MeAlCl2 was necessary.
IT 634907-30-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(nucleophilic substitution at 4'-position of nucleosides as new access to promising HIV agent 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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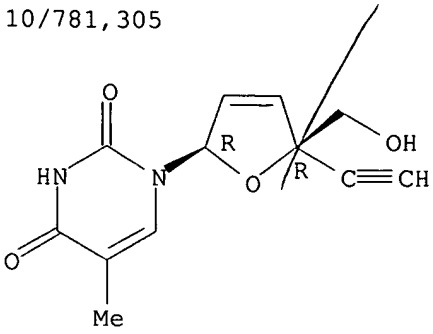
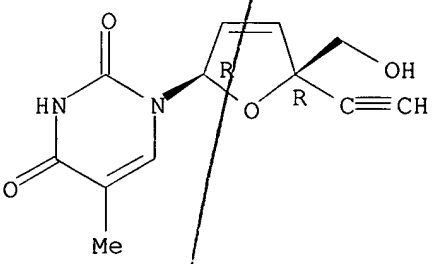


RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:986427 HCAPLUS
DN 143:318373
TI 4'-Ethynylstavudine (4'-Ed4T) has potent anti-HIV-1 activity with reduced toxicity and shows a unique activity profile against drug-resistant mutants
AU Tanaka, Hiromichi; Haraguchi, Kazuhiro; Kumamoto, Hiroki; Baba, Masanori; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, Japan
SO Antiviral Chemistry & Chemotherapy (2005), 16(4), 217-221
CODEN: ACCHEH; ISSN: 0956-3202
PB International Medical Press
DT Journal
LA English
AB A nucleoside analog 4'-ethynylstavudine (4'-Ed4T) was recently synthesized during chemical studies directed towards the development of a new route to 4'-carbon-substituted nucleosides. This compound was more anti-HIV-1 active than the parent compound stavudine (d4T) and much less toxic to various cells and also to mitochondrial DNA synthesis. It became apparent that 4'-Ed4T is a better substrate for human thymidine kinase than d4t, and very much more resistant to catabolism by thymidine phosphorylase. The study of 4'-Ed4T against various drug-resistant HIV-1 mutants has disclosed its unique activity profile.
IT 634907-30-5
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethynylstavudine has potent anti-HIV-1 activity with reduced toxicity and shows unique activity profile against drug-resistant mutants)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

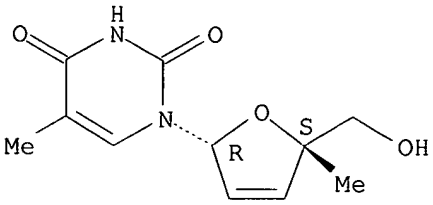


McIntosh

IT 151989-82-1 634907-29-2 717913-88-7
717913-90-1 717913-91-2
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethynylstavudine has potent anti-HIV-1 activity with reduced toxicity and shows unique activity profile against drug-resistant mutants)

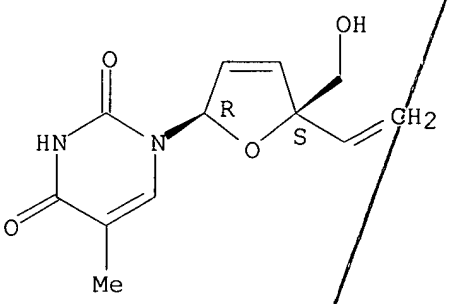
RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



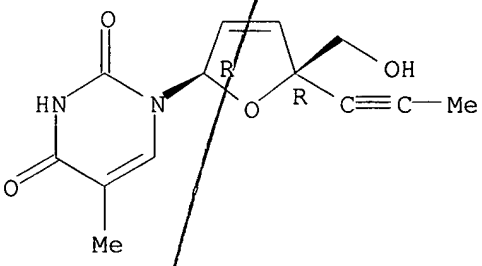
RN 634907-29-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 717913-88-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

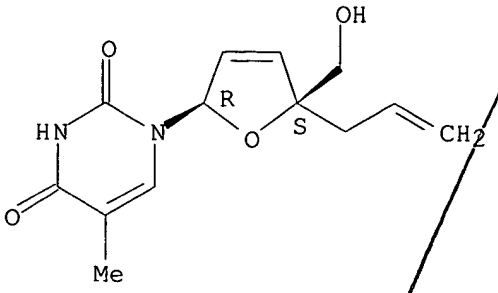
Absolute stereochemistry.



RN 717913-90-1 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

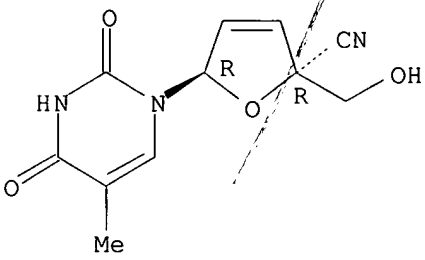
10/781,305

Absolute stereochemistry.



RN 717913-91-2 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:714283 HCAPLUS
DN 143:339014
TI Anti-human immunodeficiency virus type 1 activity and resistance profile of 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine in vitro
AU Nitanda, Takao; Wang, Xin; Kumamoto, Hiroki; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Cheng, Yung-Chi; Baba, Masanori
CS Division of Antiviral Chemotherapy, Center for Chronic Viral Diseases, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, 890-8544, Japan
SO Antimicrobial Agents and Chemotherapy (2005), 49(8), 3355-3360
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine (4'-Ed4T) has been identified as a novel nucleoside analog with potent and selective anti-human immunodeficiency virus type 1 (HIV-1) activity and weak cytotoxicity in cell cultures. 4'-Ed4T proved to be 5- to 10-fold more active than its structurally related compound, stavudine (d4T). However, the drug resistance profile of 4'-Ed4T was different from those of d4T and other existing HIV-1 nucleoside reverse transcriptase inhibitors (NRTIs). Approx. 6- to 11-fold decreases in susceptibility to 4'-Ed4T were observed for HIV-1 carrying NRTI-associated mutations (D67N, K70R, T215F, and K219Q) or the lamivudine (3TC)-resistant mutation M184V. In contrast, the

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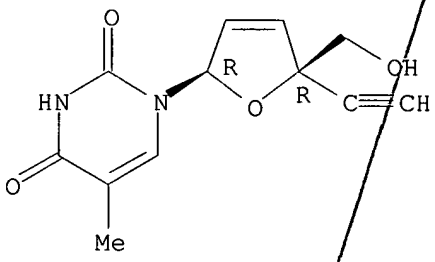
susceptibility of the virus carrying the K65R mutation or the multidrug-resistant mutation with the Q151M complex (A62V, V75I, F77L, F116Y, and Q151M) was not altered. Furthermore, the activity of 4'-Ed4T appeared to be enhanced in the presence of K103N, a major nonnucleoside reverse transcriptase inhibitor-resistant mutation. Although 4'-Ed4T was 4.5- to 17.5-fold less active against multidrug-resistant clin. isolates than against a reference strain isolated from a treatment-naive patient, it was still inhibitory to these isolates at low concns. Anal. of 4'-Ed4T-resistant HIV-1 obtained through in vitro selection revealed that the virus was also resistant to 3TC and had two amino acid mutations (P119S and T165A) in addition to the M184V mutation. Since 4'-Ed4T has increased anti-HIV-1 activity, decreased cytotoxicity, and a different resistance profile, it should be considered for further development as a new member of NRTIs.

IT 634907-30-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV1 activity and resistance profile of didehydrodeoxyethynylthymidine in vitro)

RN 634907-30-5 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:351348 HCAPLUS

DN 144:51794

TI Synthesis of (±)-4'-ethynyl and 4'-cyano carbocyclic analogs of stavudine (d4T)

AU Kumamoto, Hiroki; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, Ginger E.; Cheng, Yung-Chi; Kato, Keisuke

CS Pharmaceutical Sciences, Showa University, Tokyo, Japan

SO Nucleosides, Nucleotides & Nucleic Acids (2005), 24(2), 73-83
CODEN: NNNAFY; ISSN: 1525-7770

PB Taylor & Francis, Inc.

DT Journal

LA English

OS CASREACT 144:51794

AB The synthesis of (±)-4'-ethynyl (I) and 4'-cyano (II) carbocyclic analogs of the anti-HIV agent stavudine (d4T) is reported. The carbocyclic unit was constructed from readily available β-keto ester. The ethynyl or cyano group of I and II were prepared, after the introduction of thymine base, by manipulation of the ester function. Evaluation of the anti-HIV activity of I and II was also carried out, but ultimately did not

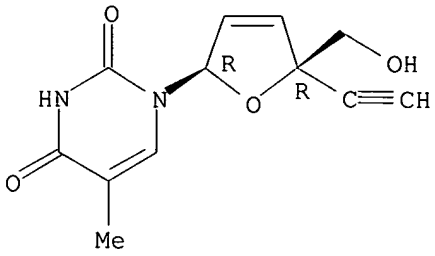
inhibit the virus.

IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(synthesis and anti-HIV activity of (±)-4'-ethynyl and 4'-cyano carbocyclic nucleoside stavudine analogs)

RN 634907-30-5 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:701799 HCAPLUS
DN 141:225774
TI Preparation of 2',3'-dideoxy and 2',3'-didehydro nucleoside analogs as prodrugs for treating viral infections, most notably HIV
IN Cheng, Yung-chi; Tanaka, Hiromichi; Baba, Masanori
PA USA
SO U.S. Pat. Appl. Publ., 45 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004167096	A1	20040826	US 2004-781305	20040218
	AU 2004260630	A1	20050210	AU 2004-260630	20040218
	CA 2514466	AA	20050210	CA 2004-2514466	20040218
	WO 2005011709	A1	20050210	WO 2004-US4713	20040218
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2004007374	A	20060110	BR 2004-7374	20040218
	EP 1653976	A1	20060510	EP 2004-775776	20040218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1777432	A	20060524	CN 2004-80010529	20040218
PRAI	US 2003-448554P	P	20030219		

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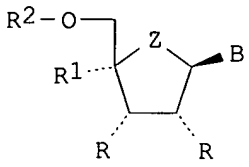
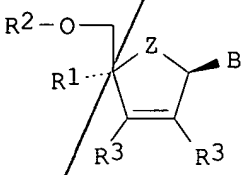
WO 2004-US4713 W 20040218
OS CASREACT 141:225774; MARPAT 141:225774

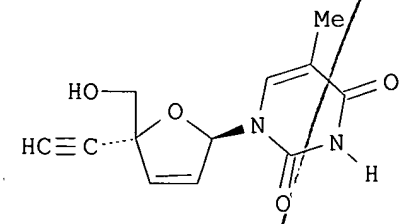
GI



I



II



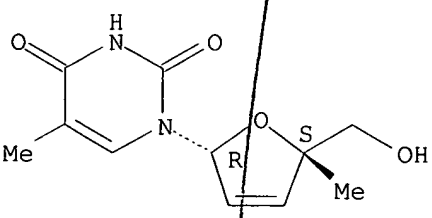
III

AB Nucleosides I, wherein B is nucleobase; Z is O or CH2; R is H, OH, halo, alkyl substituents; R1 can be H, Me, alkenyl, alkynyl; R2 is H, acyl, alkyl, ether, phosphoethers; and 2',3'-didehydro nucleosides II where Z is O; and R3 can alkyl, alkenyl, alkynyl, halo, hydroxy, were prepared as prodrugs and antiviral agents. Thus, the synthesized 2',3'-dideoxy and didehydro nucleoside analogs were tested as potential antiviral, anti-HIV and anti-infective prodrugs as independent agents, or in combination with other agents. Specifically, didehydro nucleoside III was prepared and tested in vitro as potent anti-HIV-1 agent (EC50 = 0.25 ± 0.14) and as well less toxic (ID50 >256) as D4T, therefor has the potential as a new anti-HIV drug.

IT 151989-82-1P 634907-29-2P 634907-30-5P
717913-88-7P 717913-89-8P 717913-90-1P
717913-91-2P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of 2',3'-dideoxy and didehydro nucleoside analog and their evaluation as antiviral, anti-HIV and anti-infective prodrugs)

RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 634907-29-2 HCAPLUS

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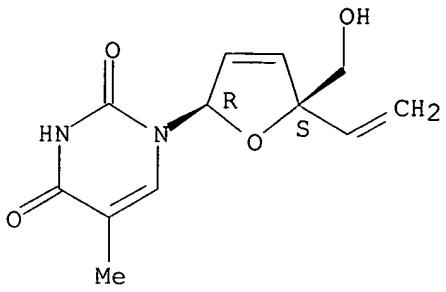
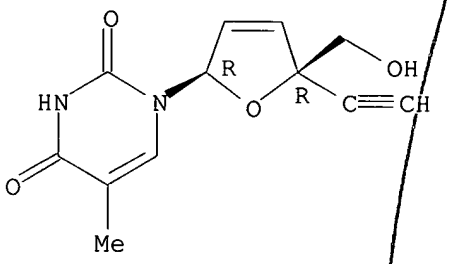
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



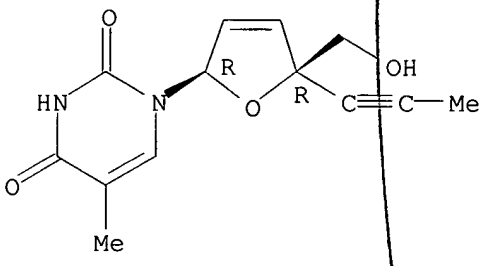
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



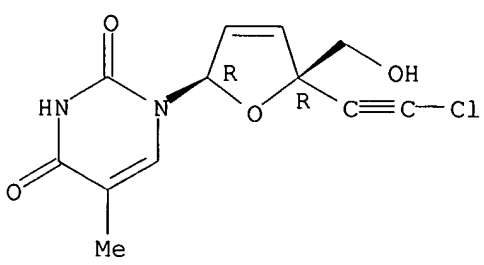
RN 717913-88-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



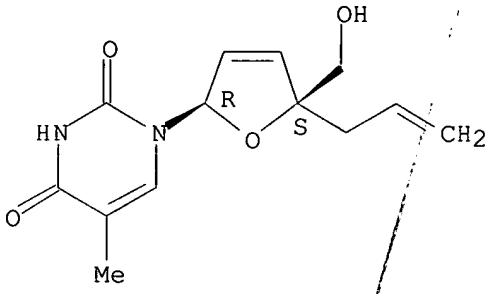
RN 717913-89-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-(chloroethynyl)-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



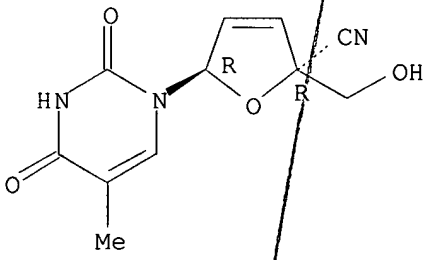
RN 717913-90-1 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



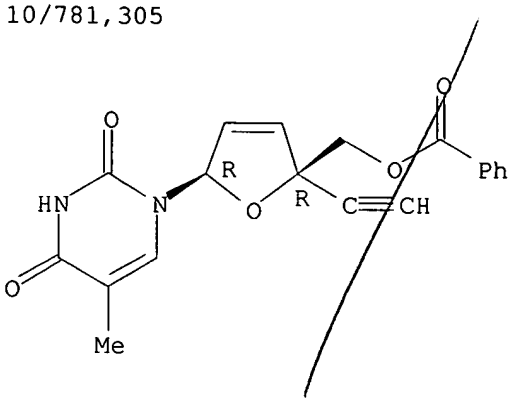
RN 717913-91-2 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



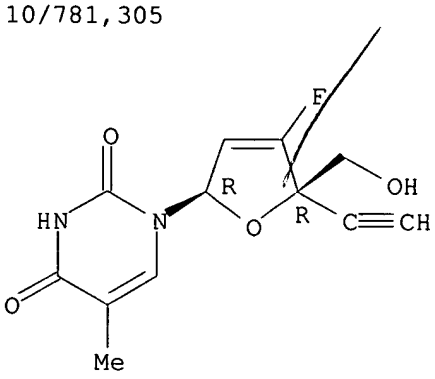
IT 744217-17-2P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of 2',3'-dideoxy and didehydro nucleoside analog and their evaluation as antiviral, anti-HIV and anti-infective prodrugs)
RN 744217-17-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



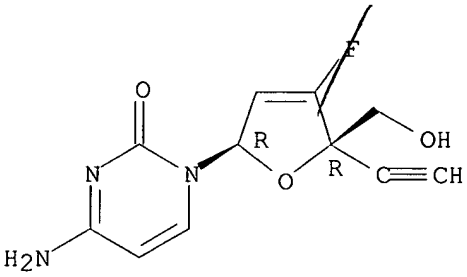
L12 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:641088 HCAPLUS
DN 141:296237
TI Synthesis of 3'-Fluoro-2',3'-dideoxy-2',3'-didehydro-4'-ethynyl-D- and -L-furanosyl Nucleosides
AU Chen, Xin; Zhou, Wen; Schinazi, Raymond F.; Chu, Chung K.
CS College of Pharmacy, University of Georgia, Athens, GA, 30602, USA
SO Journal of Organic Chemistry (2004), 69(18), 6034-6041
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:296237
AB An efficient procedure has been developed for the synthesis of 3'-fluoro-2',3'-dideoxy-2',3'-didehydro-4'-ethynyl D- and L-furanosyl nucleosides starting from 2,3-O-isopropylidene-D-glyceraldehyde. The key intermediate 1-O-benzoyl-3E-fluoro-3,4-unsatd.-5,6-di(tert-butyldimethylsilyloxy)-2-hexanone was obtained in nine steps with the overall yield of 22%. This α,β-unsatd. ketone was then treated with ethynylmagnesium bromide in a typical Grignard reaction procedure to afford two intermediates, which after deprotection, oxidation, and acetylation gave the corresponding 4-ethynyl-substituted D- and L-sugar moieties. A series of D- and L-pyrimidine and purine nucleosides were prepared by the coupling of the sugar moieties with various silyl-protected bases. The anomeric mixts. were obtained after condensation. After separation, the β-isomers were further deprotected to yield the target nucleosides. All the newly synthesized 4'-substituted nucleosides were tested for their activities against HIV, among which the D-adenine derivative showed moderate anti-HIV activity (EC50 = 25.1 μM) without significant cytotoxicity.
IT 765311-83-9P 765311-84-0P 765311-92-0P
765311-93-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)
RN 765311-83-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



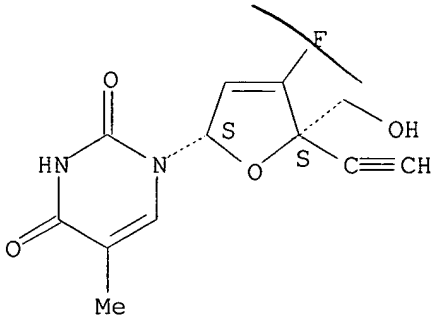
RN 765311-84-0 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



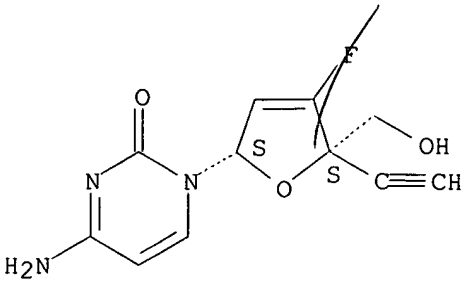
RN 765311-92-0 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 765311-93-1 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

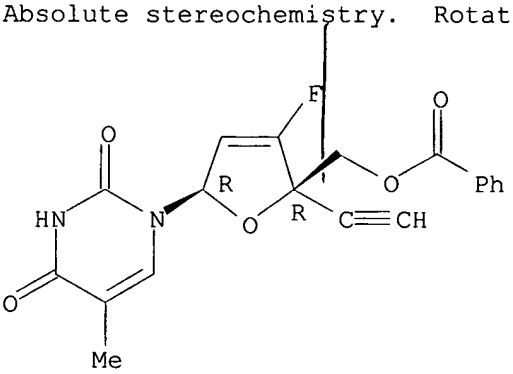
Absolute stereochemistry.



IT 765311-77-1P 765311-78-2P 765311-86-2P
765311-87-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)

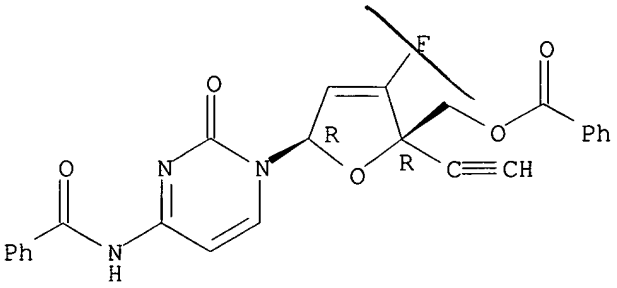
RN 765311-77-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-ethynyl-3'-fluoro-, 5'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



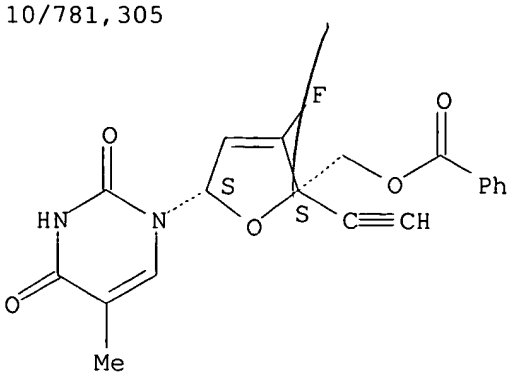
RN 765311-78-2 HCAPLUS
CN Cytidine, N-benzoyl-2',3'-didehydro-2',3'-dideoxy-4'-C-ethynyl-3'-fluoro-, 5'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



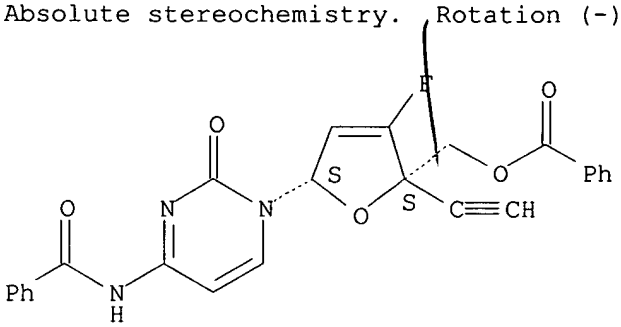
RN 765311-86-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



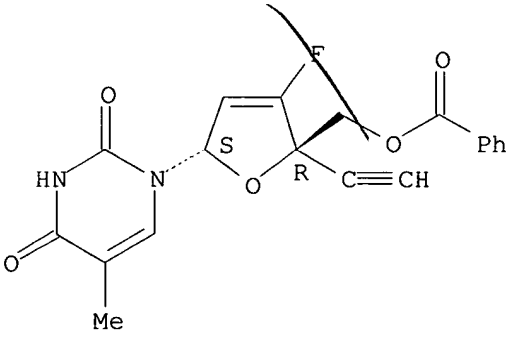
RN 765311-87-3 HCAPLUS
CN Benzamide, N-[1-[(2S,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



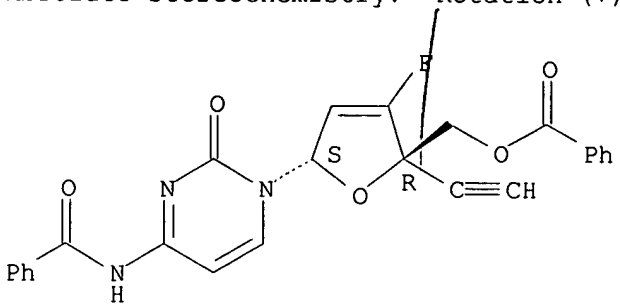
IT 765311-79-3P 765311-80-6P 765311-88-4P
765311-89-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)
RN 765311-79-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



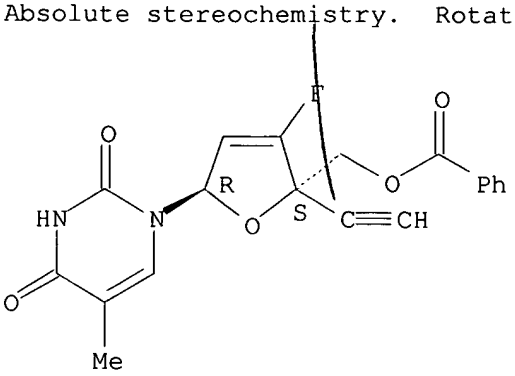
RN 765311-80-6 HCAPLUS
CN Benzamide, N-[1-[(2S,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



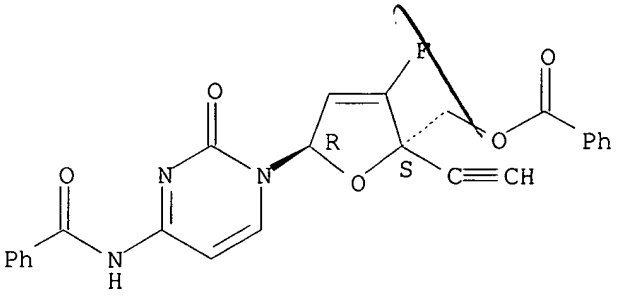
RN 765311-88-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 765311-89-5 HCAPLUS
CN Benzamide, N-[1-[(2R,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



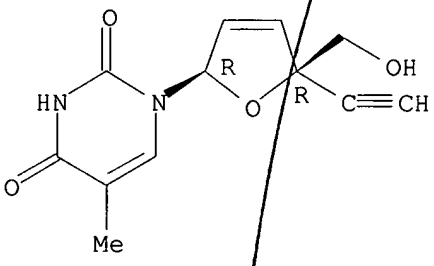
RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:393067 HCAPLUS
DN 141:350346
TI Synthesis and Anti-HIV Activity of 4'-Cyano-2',3'-didehydro-3'-deoxythymidine

AU Haraguchi, Kazuhiro; Itoh, Yoshiharu; Takeda, Shingo; Honma, Yosuke; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, Ginger E.; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, Shinagawa-ku, Tokyo, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2004), 23(4), 647-654
CODEN: NNNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
OS CASREACT 141:350346
AB A new anti-HIV agent 4'-cyano-2',3'-didehydro-3'-deoxythymidine was synthesized by allylic substitution of the 3',4'-unsatd. nucleoside, having a leaving group at the 2'-position, with cyanotrimethylsilane in the presence of $SnCl_4$. Evaluation of the anti-HIV activity showed that this compound is much less potent than the recently reported 2',3'-didehydro-3'-deoxy-4'-(ethynyl)thymidine.

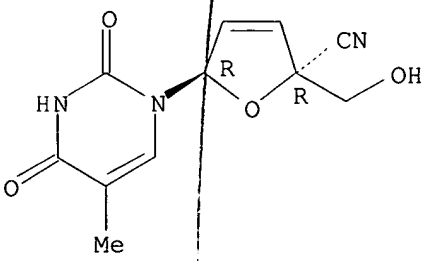
IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 717913-91-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 717913-91-2 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

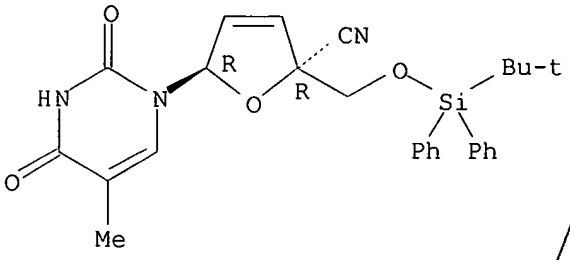


IT 774226-11-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)

RN 774226-11-8 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2R,5R)-(9CI) (CA INDEX NAME)

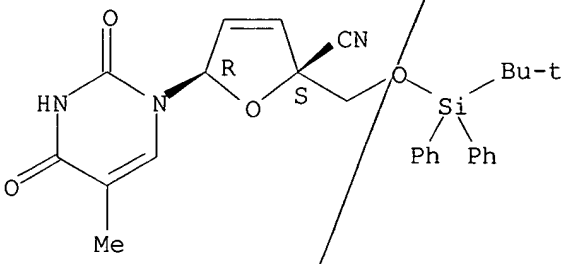
Absolute stereochemistry.



IT 774226-12-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)

RN 774226-12-9 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S,5R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:374658 HCAPLUS
DN 141:99075
TI Novel 4'-substituted stavudine analog with improved anti-human immunodeficiency virus activity and decreased cytotoxicity
AU Dutschman, Ginger E.; Grill, Susan P.; Gullen, Elizabeth A.; Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi; Baba, Masanori; Cheng, Yung-Chi
CS Department of Pharmacology, School of Medicine, Yale University, New Haven, CT, 06520, USA
SO Antimicrobial Agents and Chemotherapy (2004), 48(5), 1640-1646
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal

LA English

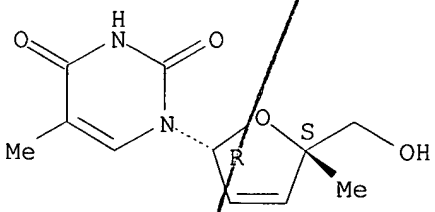
AB The antiviral drug 2',3'-didehydro-3'-deoxythymidine (D4T; also know as stavudine and Zerit), which is used against human immunodeficiency virus (HIV), causes delayed toxicity (peripheral neuropathy) in long-term use. After examining a series of 2',3'-didehydro-3'-deoxy-4'-substituted thymidine (4'-substituted D4T) analogs, 4'-ethynyl D4T was found to have a fivefold better antiviral effect and to cause less cellular and mitochondrial toxicity than D4T. The antiviral activity of this compound can be reversed by dThd but not by dCyd. The compound acted synergistically with β-L-2',3'-deoxy-3'-thiacytidine (also known as lamivudine) and β-L-2',3'-dideoxy-2',3'-didehydro-5-fluorocytidine (also known as elvucitabine) and additively with 2',3'-dideoxyinosine (also known as didanosine and Videx) and 3'-azido-3'-deoxythymidine (also known as Retovir and zidovudine) against HIV. 4'-Ethynyl D4T is phosphorylated by purified human thymidine kinase 1 (TK-1) from CEM cells with a faster relative Vmax and a lower Km value than D4T. The efficiency of TK-1 in the phosphorylation of 4'-ethynyl D4T is fourfold better than that of D4T. While D4T is broken down by the catabolic enzyme thymidine phosphorylase, the level of breakdown of 4'-ethynyl D4T was below detection. Since 4'-ethynyl D4T has increased anti-HIV activity and decreased toxicity and interacts favorably with other currently used anti-HIV drugs, it should be considered for further development as an anti-HIV drug.

IT 151989-82-1, 2',3'-Didehydro-3'-deoxy-4'-methylthymidine
634907-29-2, 2',3'-Didehydro-3'-deoxy-4'-ethenylthymidine
634907-30-5 717913-88-7, 2',3'-Didehydro-3'-deoxy-4'-methylethynylthymidine, 717913-89-8, 2',3'-Didehydro-3'-deoxy-4'-chloroethynylthymidine 717913-90-1, 4'-Allyl-2',3'-Didehydro-3'-deoxythymidine 717913-91-2, 4'-Cyano-2',3'-Didehydro-3'-deoxythymidine
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(4'-substituted stavudine analog with improved anti-HIV activity and decreased cytotoxicity)

RN 151989-82-1 HCAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

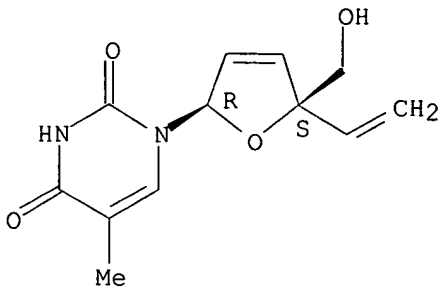
Absolute stereochemistry.



RN 634907-29-2 HCAPLUS

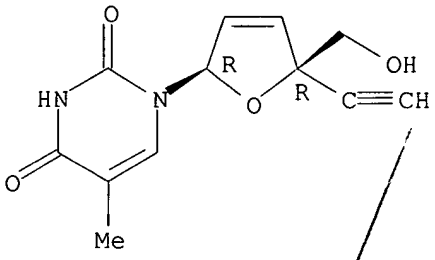
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



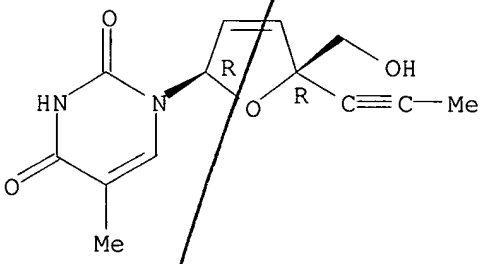
RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



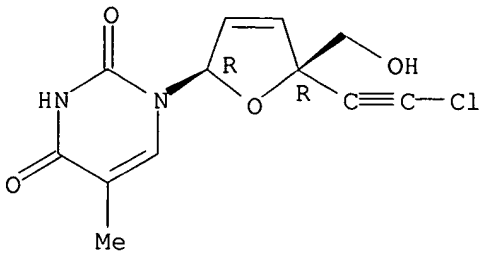
RN 717913-88-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



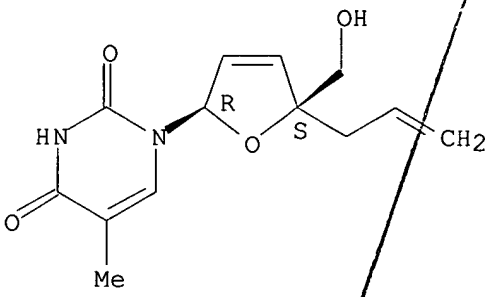
RN 717913-89-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-(chloroethynyl)-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



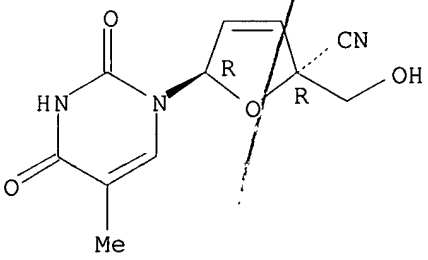
RN 717913-90-1 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 717913-91-2 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:795099 HCAPLUS
DN 140:42413
TI Synthesis of a highly active new anti-HIV agent 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine
AU Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, G. E.; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, 1-5-8 Hatanodai, Shinagawa-ku, Tokyo, 142-8555, Japan
SO Bioorganic & Medicinal Chemistry Letters (2003), 13(21), 3775-3777

11/2005

McIntosh

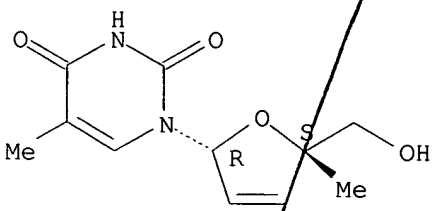
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 140:42413

AB Compds. having Me, vinyl, and ethynyl groups at the 4'-position of stavudine (d4T: 2',3'-didehydro-3'-deoxythymidine) were synthesized. The compds. were assayed for their ability to inhibit the replication of HIV in cell culture. The 4'-ethynyl analog was found to be ten times more potent and less toxic than the parent compound stavudine.

IT 151989-82-1P 634907-29-2P 634907-30-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and anti-HIV structure activity anal. of 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine analogs)

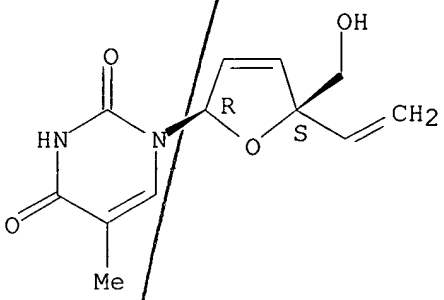
RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



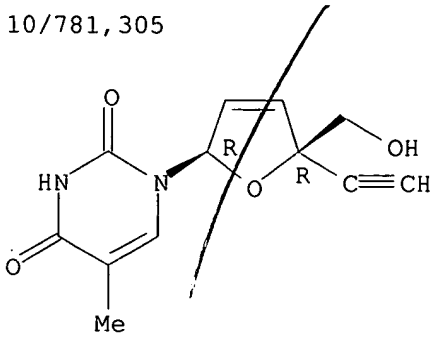
RN 634907-29-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 634907-30-5 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

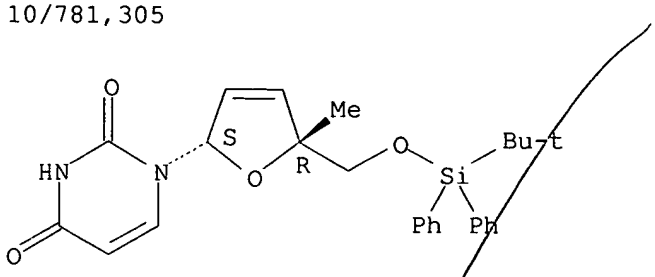


RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2003:788367 HCAPLUS
DN 140:16909
TI Asymmetric synthesis of oxygen heterocycles via Pd-catalyzed dynamic kinetic asymmetric transformations: Application to nucleosides
AU Trost, Barry M.; Brown, Brian S.; McEachern, Ernest J.; Kuhn, Oliver
CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA
SO Chemistry--A European Journal (2003), 9(18), 4442-4451
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 140:16909
AB Racemic butadiene and isoprene monoepoxide react with unsatd. alcs. in the presence of a chiral palladium catalyst and a boron co-catalyst to give 3-alkoxy-4-hydroxy-1-butene and 3-alkoxy-4-hydroxy-3-methyl-1-butene, resp., with excellent regio and enantioselectivity in a dynamic kinetic asym. transformation whereby both enantiomers of the starting epoxides provide the same enantiomeric product. In the case of 2-phenyl-butadiene monoepoxide, easily available from phenacyl chloride and vinylmagnesium bromide, the reaction proceeds by kinetic resolution A model to rationalize the result is presented. The bis-olefin products are ideal substrates for the Ru catalyzed ring closing metathesis. In this way, five-, six-, and seven-membered oxygen heterocycles are readily available enantiomerically pure. The value of this very simple two step process is demonstrated by the use of the five-membered ring heterocycles to form unnatural and unusual nucleosides that cannot be easily accessed by other means. The sequence involves a Ru catalyzed isomerization of the initial 2,5-dihydrofuran to a 2,3-dihydrofuran followed by a selenium promoted addition of a pyrimidine or purine base. One advantage of this strategy is the easy access to either enantiomeric series, both of which have important biol. applications.
IT 628301-86-0P 630109-32-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(asym. synthesis of oxygen heterocycles and unsatd. dideoxynucleoside analogs which is amendable to the preparation of either enantiomeric series)
RN 628301-86-0 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-methyl-2-furanyl]-(9CI) (CA INDEX NAME)

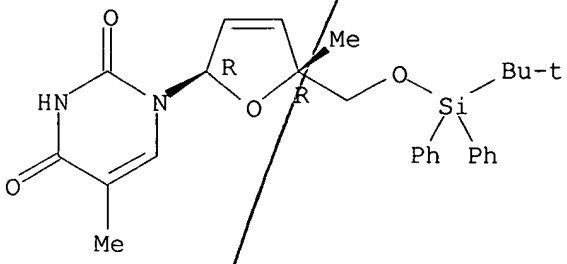
Absolute stereochemistry.

9/22/03



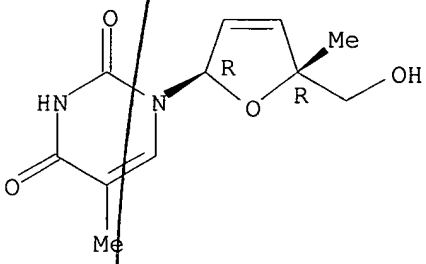
RN 630109-32-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



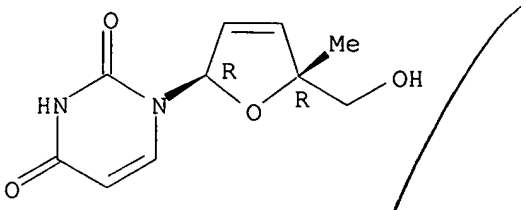
IT 628301-88-2P 628301-89-3P 630109-39-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(asym. synthesis of oxygen heterocycles and unsatd. dideoxynucleoside analogs which is amendable to the preparation of either enantiomeric series)
RN 628301-88-2 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



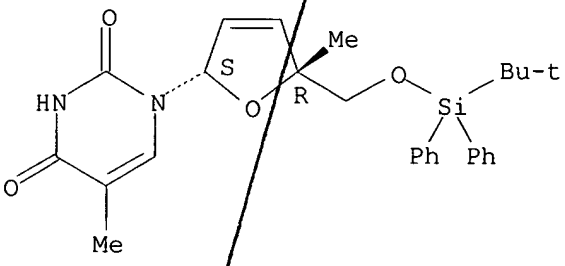
RN 628301-89-3 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 630109-39-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

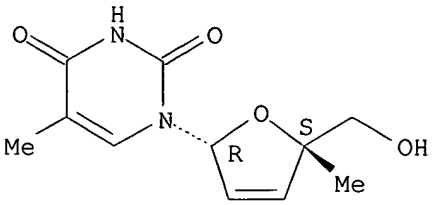


RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:954815 HCAPLUS
DN 138:321485
TI Reaction of 4',5'-epoxynucleosides with carbon nucleophiles: Stereoselective synthesis of 4'-C-carbon-substituted nucleosides
AU Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142-8555, Japan
SO Nucleic Acids Research Supplement (2002), 2(Twenty-ninth Symposium on Nucleic Acids Chemistry), 133-134
CODEN: NARSCE
PB Oxford University Press
DT Journal
LA English
OS CASREACT 138:321485
AB 4',5'-Epoxythymidine (I) was obtained as a single diastereoisomer by oxidation of 3'-O-(t-Bu dimethylsilyl)-4',5'-dehydrothymidine with dimethyldioxirane. When the epoxide I was treated with allyltrimethylsilane in the presence of SnCl4, regio- (at the C4') and stereoselective (from the α-face) cleavage of the oxirane ring proceeded to afford a 4'-C-α-allylated derivative as a sole product. In the reaction of I with trimethylaluminum, 4'-C-β-Me derivative was obtained as a major product.
IT 151989-82-1P
RL: PNU (Preparation, unclassified); PREP (Preparation)
(stereoselective synthesis of 4'-C-carbon-substituted nucleosides via epoxide ring opening of 4',5'-epoxynucleosides with carbon nucleophiles)
RN 151989-82-1 HCAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

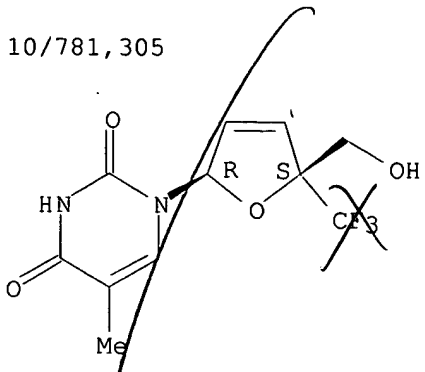
Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:556506 HCAPLUS
DN 137:257266
TI In Silico Studies toward the Discovery of New Anti-HIV Nucleoside Compounds with the Use of TOPS-MODE and 2D/3D Connectivity Indices. 1. Pyrimidyl Derivatives
AU Estrada, Ernesto; Vilar, Santiago; Uriarte, Eugenio; Gutierrez, Yaquelin
CS Faculty of Pharmacy, Department of Organic Chemistry, University of Santiago de Compostela, Santiago de Compostela, 15706, Spain
SO Journal of Chemical Information and Computer Sciences (2002), 42(5), 1194-1203
CODEN: JCISD8; ISSN: 0095-2338
PB American Chemical Society
DT Journal
LA English
AB Computational approaches are developed to design or rationally select, from structural databases, pyrimidyl nucleosides with anti-HIV activity. A data set of 141 nucleoside derivs. was selected from literature, and a discriminant function was derived with the use of TOPS-MODE descriptors. The model is able to classify correctly 83% of the compds. in a training set and 88.5% in a cross-validation set. The use of an external prediction set selected from the most recent literature proved that the model has good predictive ability, with a good classification of 85% of the compds. in this set. This model permitted the structural interpretation of the anti-HIV activity of these nucleoside analogs. This interpretation is formulated as several rules concerning the influence of several structural features on the activity/inactivity of such compds. A QSAR model for the most active compds. was developed with the combined use of 2D and 3D connectivity indexes. This model explains 88% of the variance in the activity of these compds. in MT4 assay. The combination of both models will permit the selection of pyrimidyl nucleoside leads and their optimization to improve the potency of the selected ones.
IT 219649-58-8
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in silico studies toward discovery of anti-HIV nucleoside compds. with use of TOPS-MODE and 2D/3D connectivity indexes)
RN 219649-58-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(trifluoromethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

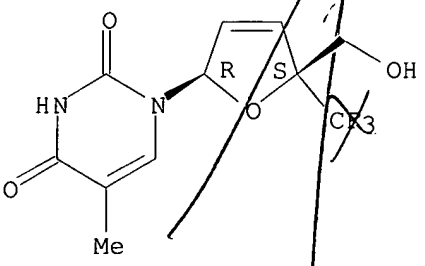
Absolute stereochemistry. Rotation (+).



RE.CNT 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:784373 HCAPLUS
DN 130:110528
TI Synthesis of 4'-trifluoromethyl nucleoside analogs
AU Kozak, Janusz; Johnson, Carl R.
CS Department of Chemistry, Wayne State University, Detroit, MI, 48202-3489, USA
SO Nucleosides & Nucleotides (1998), 17(12), 2221-2239
CODEN: NUNUD5; ISSN: 0732-8311
PB Marcel Dekker, Inc.
DT Journal
LA English
AB A strategy based on the use of (trifluoromethyl)trimethylsilane for introduction of the trifluoromethyl group at the C-4 of ribose has been developed and utilized in the synthesis of various novel 4'-trifluoromethylated nucleoside analogs. Screening of these analogs against HIV did not reveal significant biol. activity.
IT 219649-58-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of trifluoromethyl nucleoside analogs)
RN 219649-58-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(trifluoromethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

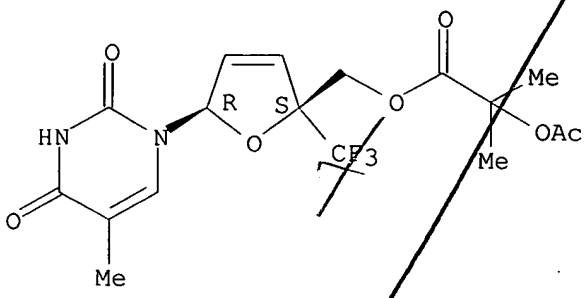
Absolute stereochemistry. Rotation (+).



IT 219649-57-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of trifluoromethyl nucleoside analogs)
RN 219649-57-7 HCAPLUS
CN Propanoic acid, 2-(acetyloxy)-2-methyl-, [(2S,5R)-5-(3,4-dihydro-5-methyl-

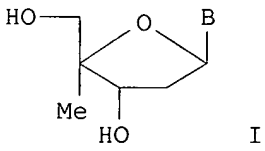
2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(trifluoromethyl)-2-furanyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:109073 HCAPLUS
DN 124:290140
TI Synthesis and biological evaluation of 4'-C-methyl nucleosides
AU Waga, Toshiaki; Ohrui, Hiroshi; Meguro, Hiroshi
CS Central Res. Lab., Asahi Breweries Ltd., Tokyo, 143, Japan
SO Nucleosides & Nucleotides (1996), 15(1-3), 287-304
CODEN: NUNUD5; ISSN: 0732-8311
PB Dekker
DT Journal
LA English
GI



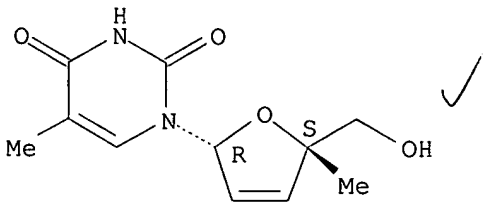
I

AB A series of 2'-deoxy, 2',3'-unsatd. and 2',3'-dideoxynucleoside analogs, e.g. I (B = adenine, cytosine, thymine), which have an addnl. Me group at the 4'-position, have been synthesized. When evaluated for their inhibitory activity against HIV in MT-4 cell, 2'-deoxy-4'-C-Me nucleosides exhibited potent activity.

IT 151989-82-1P 175545-34-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antiviral activity of C-methyldeoxyribonucleosides)

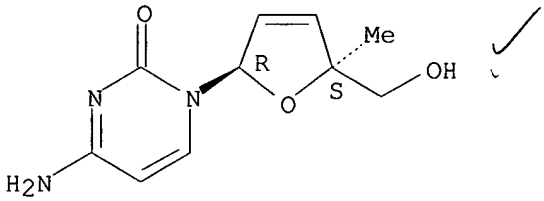
RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



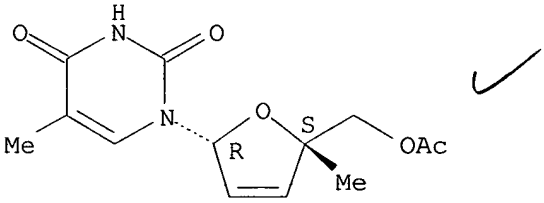
RN 175545-34-3 HCAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



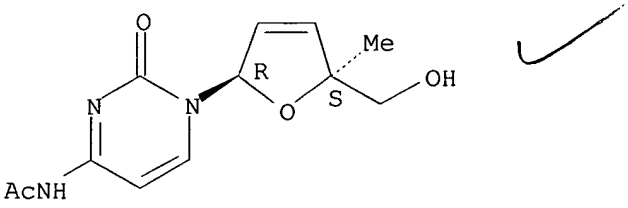
IT 160766-57-4P 175545-35-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and antiviral activity of C-methyldeoxyribonucleosides)
RN 160766-57-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[(acetyloxy)methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



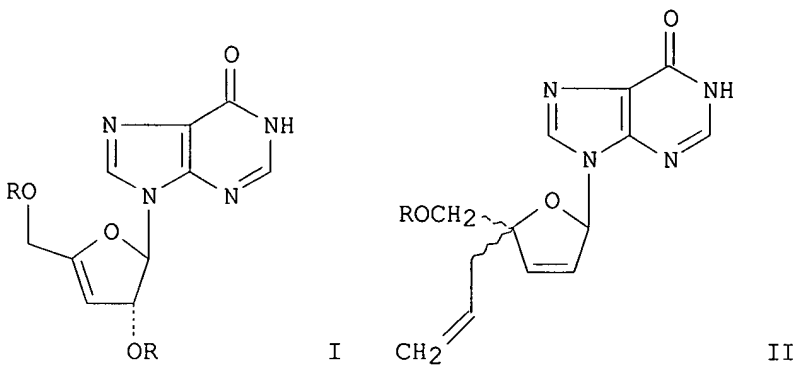
RN 175545-35-4 HCAPLUS
CN Acetamide, N-[1-[2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



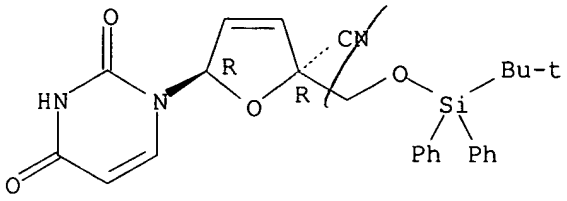
L12 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1996:53061 HCAPLUS
DN 124:202920
TI Allylic Substitution of 3',4'-Unsaturated Nucleosides: Organosilicon-Based Stereoselective Access to 4'-C-Branched 2',3'-Didehydro-2',3'-dideoxyribonucleosides
AU Haraguchi, Kazuhiro; Tanaka, Hiromichi; Itoh, Yoshiharu; Yamaguchi, Kentaro; Miyasaka, Tadashi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142, Japan
SO Journal of Organic Chemistry (1996), 61(3), 851-8
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 124:202920
GI

Printed



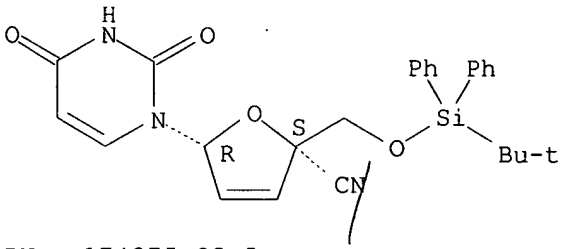
AB Reactions of organosilicon reagents (such as allyltrimethylsilane, silyl enol ethers, cyanotrimethylsilane) with 3',4'-unsatd. nucleosides, e.g. I (R = Ac, Bz, TBDPS), were investigated in the presence of a Lewis acid in CH2Cl2. In the cases of uracil and N4-acetylcytosine derivs., SnCl4 appeared to be suitable, whereas the use of EtAlCl2 was necessary for the hypoxanthine derivs. The main pathway of these reactions was found to be α-face-selective SN2' allylic substitution, irresp. of the configuration of 2'-O-acyl leaving group. As a result, a new stereoselective operation for C-C bonds formation leading to 4'-carbon-substituted 2',3'-didehydro-2',3'-dideoxyribonucleosides, e.g. II (R = Ac, Bz, TBDPS), has been disclosed for the first time. Stereochem. of these 4'-C-branched products can be assigned on the basis of 1H NMR spectroscopy in terms of the anisotropic shift of H-5 of the pyrimidine base (or H-8 of the hypoxanthine), which is caused by the 5'-O-(tert-butyldiphenylsilyl) protecting group.
IT 142468-72-2P 142560-96-1P 174275-93-5P
174391-02-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective allylic substitution of unsatd. nucleosides in preparation of branched didehydrodideoxyribonucleosides)
RN 142468-72-2 HCAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



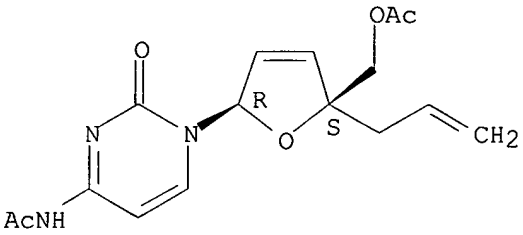
RN 142560-96-1 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



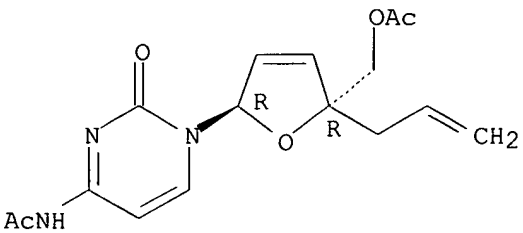
RN 174275-93-5 HCAPLUS
CN Cytidine, N-acetyl-2',3'-didehydro-2',3'-dideoxy-4'-C-2-propenyl-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 174391-02-7 HCAPLUS
CN Acetamide, N-[1-[5-[(acetyloxy)methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

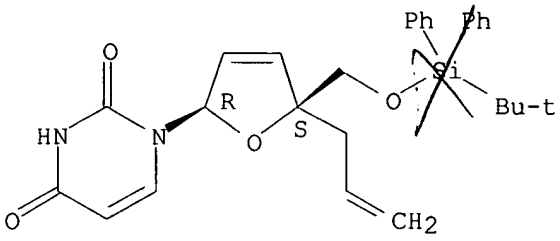
Absolute stereochemistry.



IT 142468-65-3P 142468-66-4P 142468-69-7P
142468-70-0P 142560-91-6P 142560-93-8P
142560-94-9P 142562-05-8P 145668-71-9P
153380-74-6P 174275-94-6P 174275-96-8P
174391-03-8P 174391-04-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereoselective allylic substitution of unsatd. nucleosides in preparation of branched didehydrodideoxyribonucleosides)

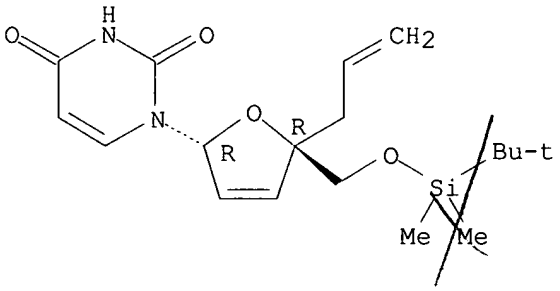
RN 142468-65-3 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



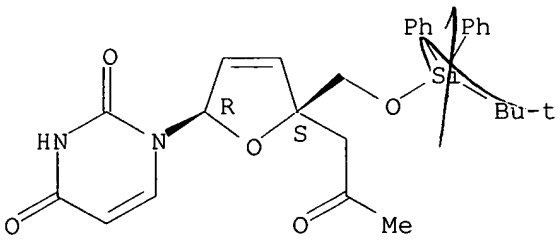
RN 142468-66-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 142468-69-7 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxopropyl)- (9CI) (CA INDEX NAME)

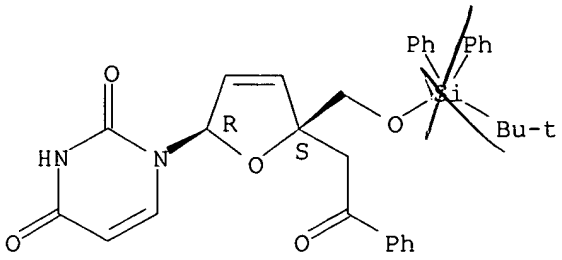
Absolute stereochemistry.



RN 142468-70-0 HCAPLUS

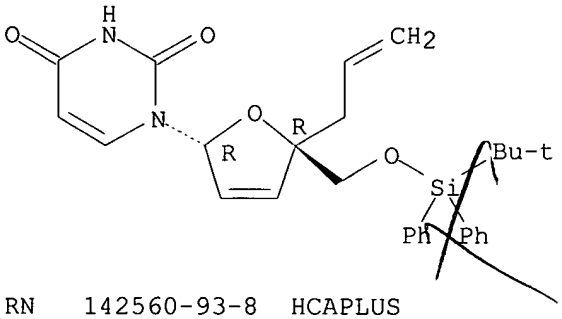
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



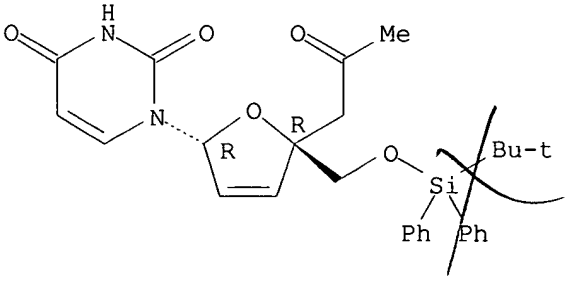
RN 142560-91-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



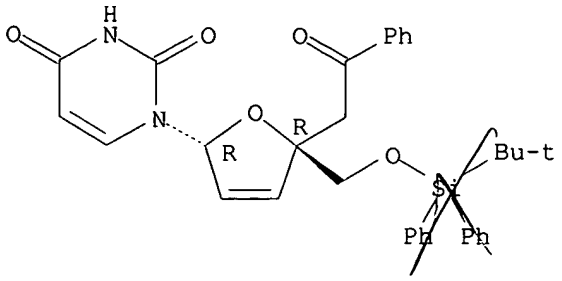
RN 142560-93-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxopropyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



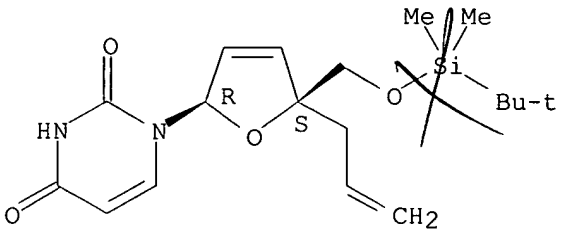
RN 142560-94-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxo-2-phenylethyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



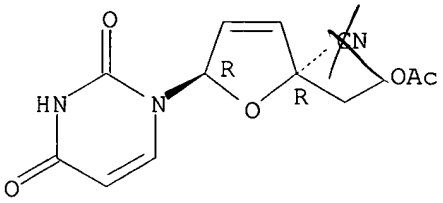
RN 142562-05-8 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)dimethylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



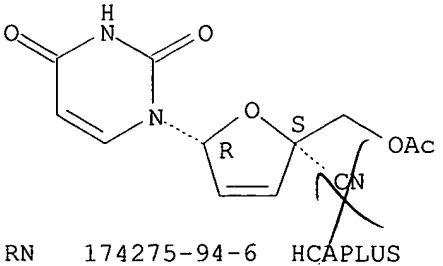
RN 145668-71-9 HCAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153380-74-6 HCAPLUS
CN 2-Furancarbonitrile, 2-[(acetyloxy)methyl]-5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

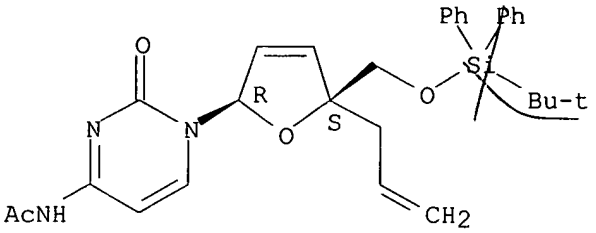
Absolute stereochemistry.



RN 174275-94-6 HCAPLUS
CN Cytidine, N-acetyl-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-

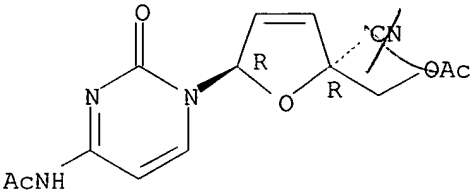
dimethylethyl)diphenylsilyl]-4'-C-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



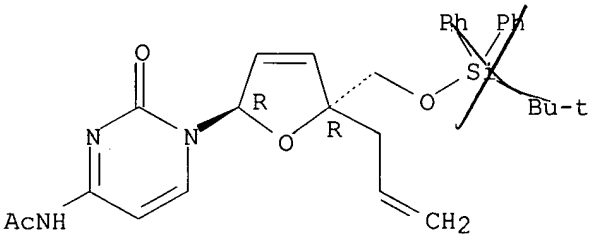
RN 174275-96-8 HCAPLUS
CN Cytidine, N-acetyl-4'-C-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



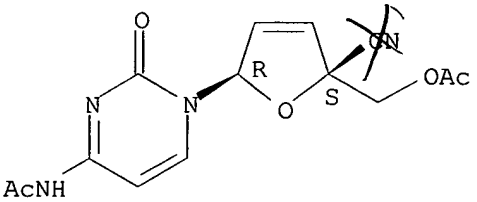
RN 174391-03-8 HCAPLUS
CN Acetamide, N-[1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 174391-04-9 HCAPLUS
CN Acetamide, N-[1-[5-[(acetyloxy)methyl]-5-cyano-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

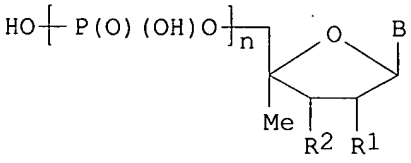


L12 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1995:23148 HCAPLUS
DN 122:133690
TI Preparation of 4'-methylnucleosides as virucides or neoplasm inhibitors
IN Waga, Toshiaki; Nishizaki, Tomoko; Oorui, Hiroshi; Meguro, Hiromu
PA Asahi Breweries Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

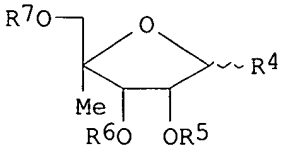
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06080688	A2	19940322	JP 1992-258847	19920903
PRAI JP 1992-258847		19920903		

OS MARPAT 122:133690
GI

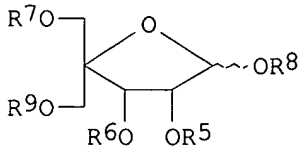
need to get translated - ordered translation 8/30/06



I



II



III

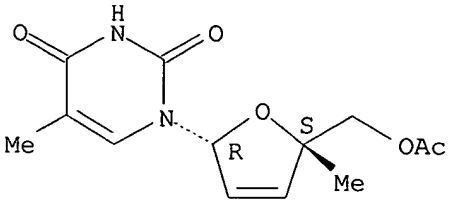
AB The title compds. I (R1, R2 = H, OH; R1R2 may form ring; B = purine or pyrimidine bases; n = 0, 1, 3) or their esters, ethers, or salts are prepared by (deprotection and) deoxidn. of sugars III (R5-8 = protective group; R9 = H, protective group) followed by reaction of resulting sugars II (R4 = acyloxy, halo; R5-7 = same as III) with (silylated) (acylated) nucleic acid bases and optional deprotection and derivatization. Pharmaceutical compns. containing I and ≥1 inert supports and/or diluents are also claimed (no data). N6-benzoyladenine was silylated by Me3SiCl in Me3SiNHSiMe3 under reflux overnight, mixed with 1,2-diacetyl-3,5-dibenzyl-4-methyl-β-D-ribofuranose (preparation given), 1,2-dichloroehtane, and SnCl4, and heated at 60° for 4 h to give 71% N6-benzoyl-2'-acetyl-3',5'-dibenzyl-4'-methyladenosine, deprotection of which gave 4'-methyladenosine.

IT 160766-57-4P, 5'-Acetyl-2',3'-didehydro-3'-deoxy-4'-methylthymidine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 160766-57-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[(acetyloxy)methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl-, (2R-cis)- (9CI) (CA INDEX NAME)

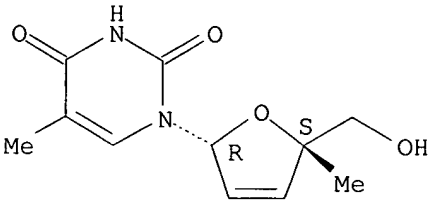
Absolute stereochemistry.

McIntosh



IT 151989-82-1P, 2',3'-Didehydro-3'-deoxy-4'-methylthymidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as virucide and neoplasm inhibitor)
RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

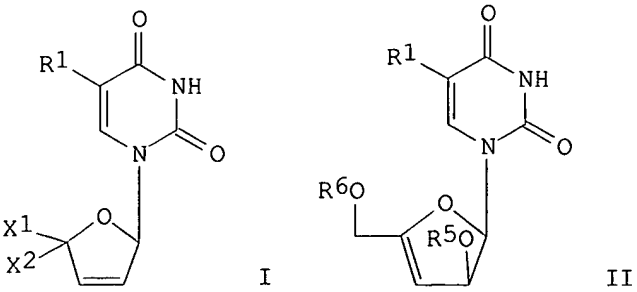
Absolute stereochemistry.



L12 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:164819 HCAPLUS
DN 120:164819
TI 4'-Carbon-substituted pyrimidine nucleosides as pharmaceuticals and their preparation
IN Haraguchi, Kazuhiro; Tanaka, Hiromichi; Myasaka, Sada
PA Yamasa Shoyu Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05230058	A2	19930907	JP 1992-72915	19920224
PRAI JP 1992-72915		19920224		

OS CASREACT 120:164819; MARPAT 120:164819
GI



I II

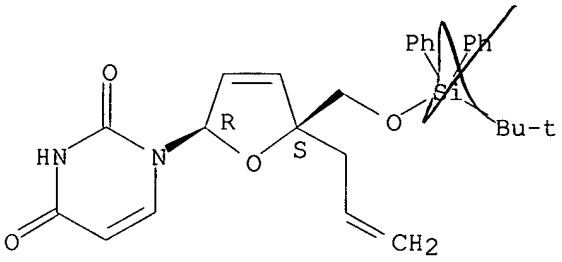
AB The title compds. I [R1 = H, halo, lower alkyl; (X1, X2) = (R2, CH2OR3), (CH2OR3, R2); R2 = allyl, 2-alkylallyl, cycloalkanon-2-yl, R4CH2, cyano; R3 = H, protective group; R4 = acyl], which show antiviral or antitumor activity (no data), are prepared by treating nucleosides II (R1 = same as I; R5 = acyl; R6 = protective group) with organosilicon compds. in presence of Lewis acids. II (R1 = H, R5 = Ac, R6 = SiPh2CMe3) (preparation given) was treated with allyltrimethylsilane and SnCl4 in CH2Cl2 at ≤-70° for 7 h to give 74% I (R1 = H, X1 = CH2OSiPh2CMe3, X2 = allyl) and 5% I (R1 = H, X1 = allyl, X2 = CH2OSiPh2CMe3).

IT 142468-65-3P 142468-68-6P 142468-69-7P
142468-70-0P 142468-72-2P 142560-91-6P
142560-92-7P 142560-93-8P 142560-94-9P
142560-96-1P 145668-71-9P 153298-97-6P
153298-99-8P 153380-73-5P 153380-74-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as pharmaceutical)

RN 142468-65-3 HCAPLUS

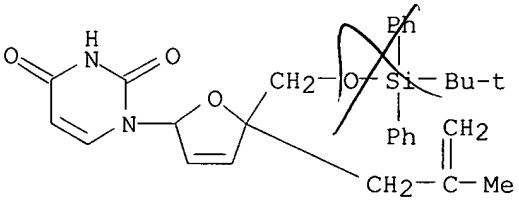
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 142468-68-6 HCAPLUS

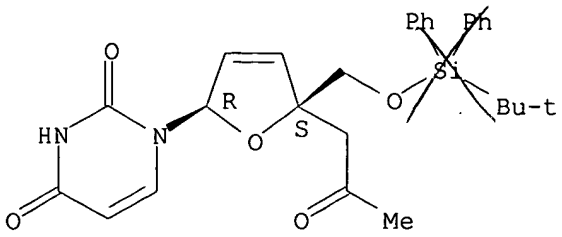
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-methyl-2-propenyl)- (9CI) (CA INDEX NAME)



RN 142468-69-7 HCAPLUS

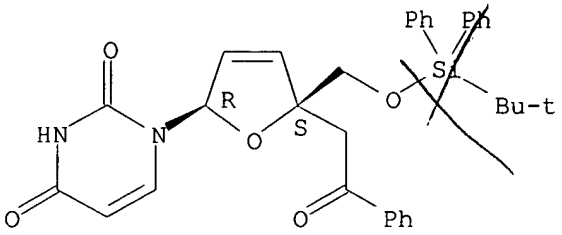
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



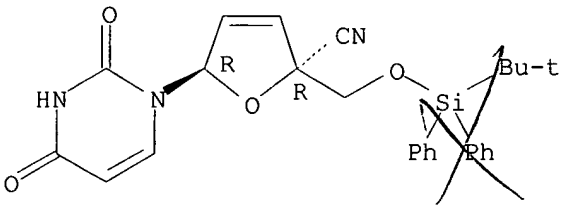
RN 142468-70-0 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



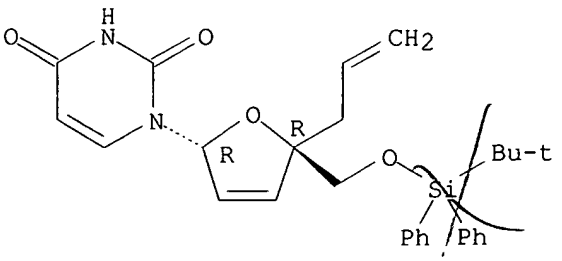
RN 142468-72-2 HCAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



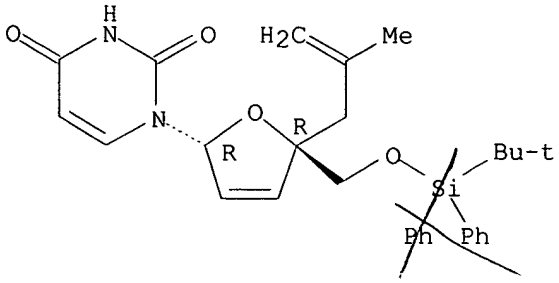
RN 142560-91-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



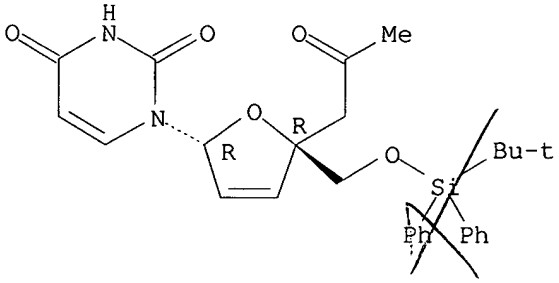
RN 142560-92-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-methyl-2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



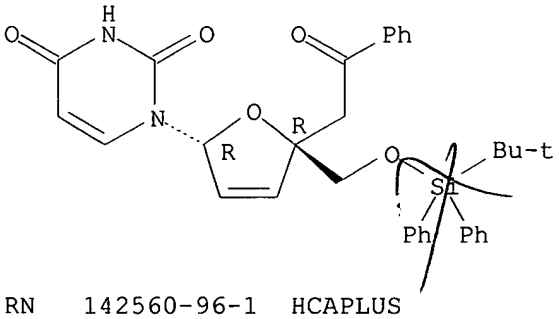
RN 142560-93-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxopropyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



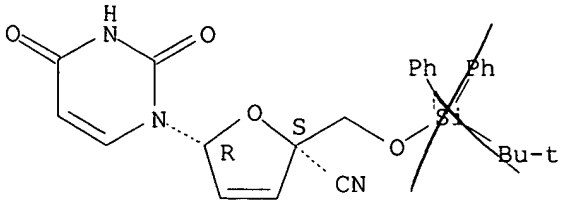
RN 142560-94-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxo-2-phenylethyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



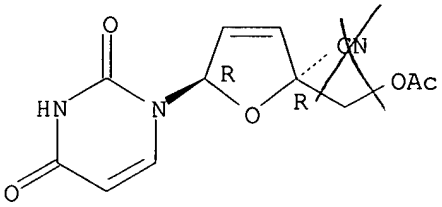
RN 142560-96-1 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



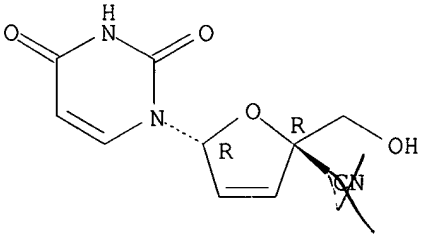
RN 145668-71-9 HCAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



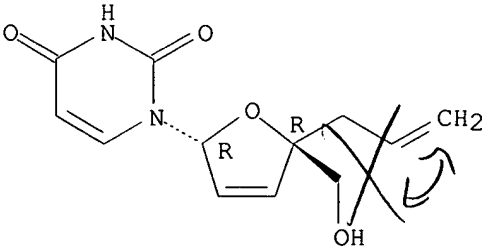
RN 153298-97-6 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153298-99-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

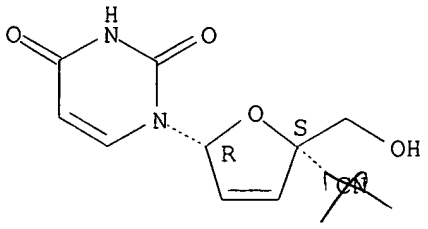
Absolute stereochemistry.



RN 153380-73-5 HCAPLUS

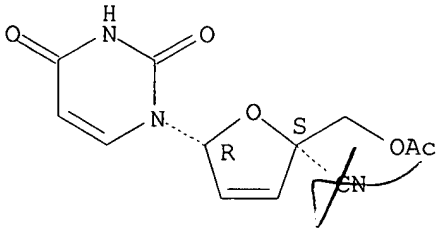
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



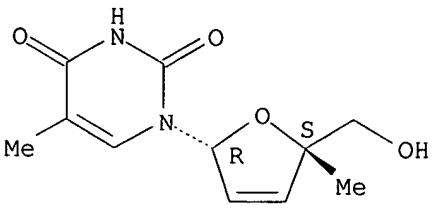
RN 153380-74-6 HCAPLUS
CN 2-Furancarbonitrile, 2-[(acetyloxy)methyl]-5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

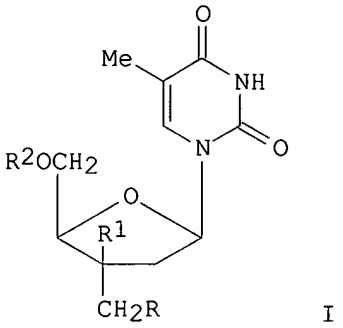


L12 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:94832 HCAPLUS
DN 120:94832
TI Rational design for potentially antitumor and/or antiviral nucleosides
AU Ohrui, Hiroshi; Waga, Toshiaki; Miyakawa, Isao; Ueno, Akihiro; Meguro, Hiroshi
CS Fac. Agric., Tohoku Univ., Aobaku, 981, Japan
SO Nucleic Acids Symposium Series (1993), 29(Second International Symposium on Nucleic Acids Chemistry), 93-4
CODEN: NACSD8; ISSN: 0261-3166
DT Journal
LA English
AB Several 4'-C-Me nucleosides, pyranoid and furanoid nucleosides have been synthesized according to the authors' rational design for anti-tumor or/and anti-viral nucleosides, and the biol. activities of these nucleosides so far tested are described.
IT 151989-82-1
RL: BIOL (Biological study)
(HIV inhibition by)
RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



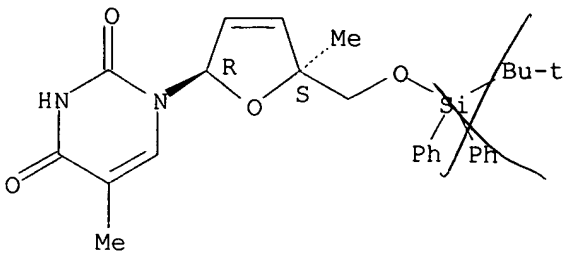
L12 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1994:54874 HCAPLUS
DN 120:54874
TI Synthesis of 1-(2,3-dideoxy-4-C-methyl-β-D-glycero-pent-2-enofuranosyl)thymine, 1-(2,3-dideoxy-4-C-methyl-β-D-glycero-pentofuranosyl)thymine and 1-(4-C-azidomethyl-2-deoxy-β-D-threo-pentofuranosyl)thymine
AU Hrebabecky, Hubert; Holy, Antonin
CS Inst. Org. Chem. Biochem., Acad. Sci. Czech Republic, Prague, 166 10, Czech Rep.
SO Collection of Czechoslovak Chemical Communications (1993), 58(7), 1668-74
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
GI



I

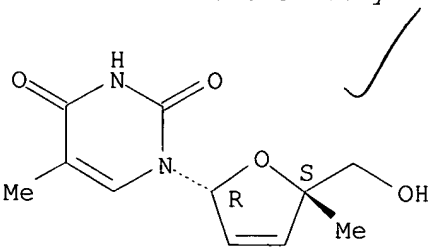
AB Title compds., e.g. I (R = N3, OH R2 = H; R-R2 = H), were prepared from I (R = OH, R1 = OR3, R2R3 = CMe2) and tested in vitro on inhibitory activity against replication of HIV-1 and HSV-2in CEM and MT-4 cells.
IT 151989-81-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)
RN 151989-81-0 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 151989-82-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 151989-82-1 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

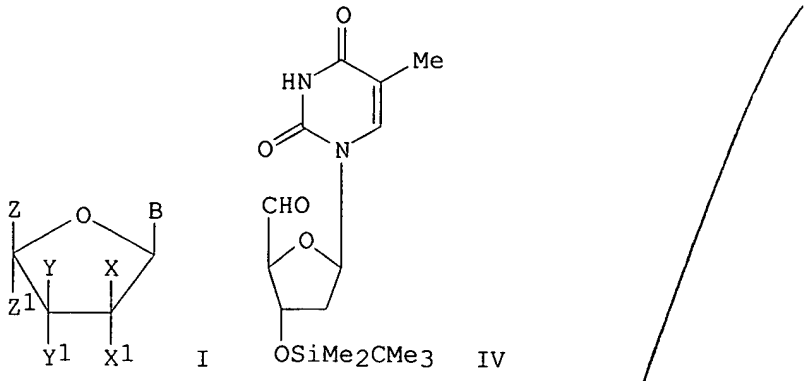
Absolute stereochemistry.



L12 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:539703 HCAPLUS
DN 119:139703
TI Preparation of antiviral 4'-substituted nucleosides
IN O-Yang, Counde; Walker, Keith A. M.; Kurz, Walter; Wu, Helen Y.
PA Syntex (U.S.A.) Inc., USA
SO U.S., 29 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO..	DATE
PI US 5192749	A	19930309	US 1990-526485	19900521
PRAI US 1990-526485		19900521		

OS MARPAT 119:139703
GI



I

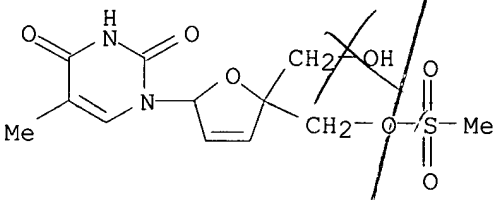
$OSiMe_2CMe_3$ IV

AB Nucleosides I [B = purinyl, pyrimidinyl, X = X1 = H; Y = H; Y1 = OH, H; Y1X1 = bond, Z = HO[P(O)(OH)O]nCH2, HOPH(O)OCH2, n = 0-3; Y1Z = cyclic phosphate, Z1 = cyano, Me, CH2N3, CH2J, J = halo; Z1Y1 = CH2O] and their pharmaceutically acceptable esters, ethers, amides, N-acyl moieties and salts were prepared as virucides including HIV inhibition)(no data). Thus, 4'-methylthymidine (II) and its 4'-isomer (III) were prepared from 5'-O-(dimethoxytrityl)thymidine via silylation, detritylation, and oxidation to give the pentodialdofuranosylthymine IV. Hydroxymethylation of IV followed by mesylation and iodination gave the 4'-epimers of I (B = thyminyl, X = X1 = Y = H, Y1 = OSiMe2CMe3, Z, Z1 = CH2OH, CH2I). Hydrogenolysis/deiodination of the latter followed by desilylation gave II and III.

IT 139926-02-6P 140145-76-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and azidolysis of)

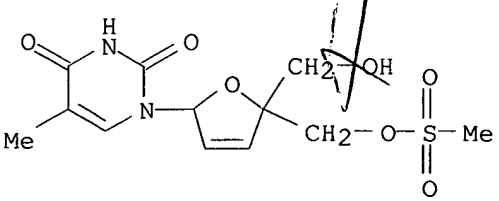
RN 139926-02-6 HCAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-[[(methylsulfonyl)oxy]methyl]-(9CI) (CA INDEX NAME)

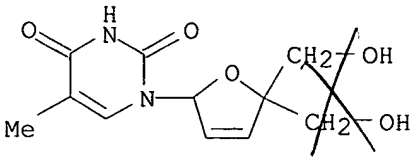


RN 140145-76-2 HCAPLUS

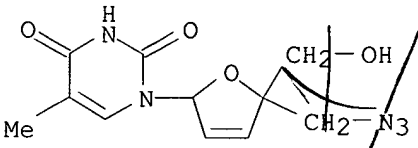
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)-, 5'-methanesulfonate (9CI) (CA INDEX NAME)



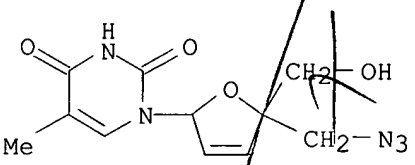
IT 139926-01-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and mesylation of)
RN 139926-01-5 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



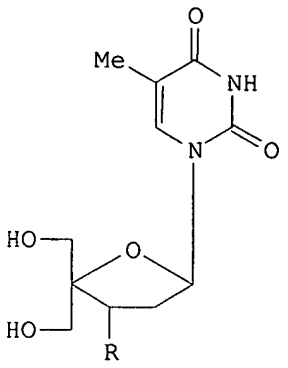
IT 139926-03-7P 140145-77-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antiviral agent in AIDS treatment)
RN 139926-03-7 HCAPLUS
CN Thymidine, 4'-(azidomethyl)-2',3'-didehydro-3'-deoxy- (9CI) (CA INDEX NAME)



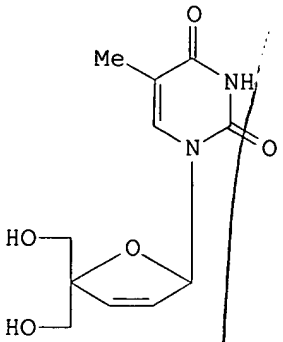
RN 140145-77-3 HCAPLUS
CN Thymidine, 5'-azido-2',3'-didehydro-2',3',5'-trideoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



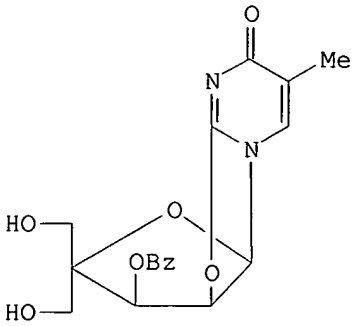
L12 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:473008 HCAPLUS
DN 119:73008
TI Synthesis of 1-[3-azido-2,3-dideoxy-4-C-(hydroxymethyl)-α-L-threo-pentofuranosyl]thymine, 1-[2,3-dideoxy-4-C-(hydroxymethyl)-α-L-glycero-pentofuranosyl]thymine, and 1-[2,3-dideoxy-4-C-(hydroxymethyl)-α-L-glycero-pent-2-enofuranosyl]thymine
AU Hrebabecky, Hubert; Holy, Antonin
CS Inst. Org. Chem. Biochem., Prague, 166 10, Czech.
SO Collection of Czechoslovak Chemical Communications (1993), 58(2), 409-20
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
GI



I



II



III

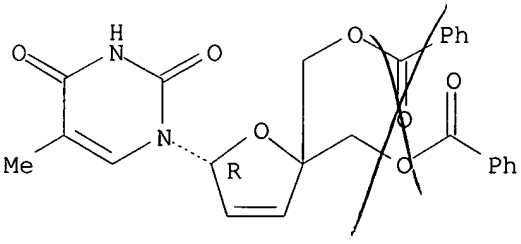
AB Title compds. I and II (R = H, N3) were prepared from 1-(2-O-Acetyl-3,5-di-O-benzoyl-4-C-benzoyloxymethyl-α-L-arabinofuranosyl)thymine via intermediate anhydro nucleoside III.

IT 148704-71-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and debenzoylation of)

RN 148704-71-6 HCAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[5,5-bis[(benzoyloxy)methyl]-2,5-dihydro-2-furanyl]-5-methyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

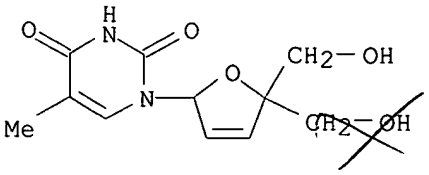


IT 139926-01-5P 148704-72-7P 148704-73-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 139926-01-5 HCAPLUS

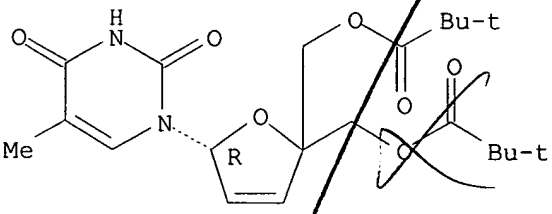
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)

McIntosh



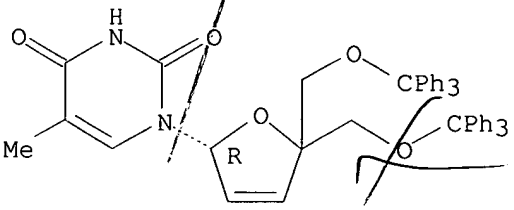
RN 148704-72-7 HCAPLUS
CN Propanoic acid, 2,2-dimethyl-, [5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2(5H)-furanylidene]bis(methylene) ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 148704-73-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[2,5-dihydro-5,5-bis[(triphenylmethoxy)methyl]-2-furanyl]-5-methyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:70688 HCAPLUS
DN 118:70688
TI Structure of a 4'-C-branched 2',3'-didehydro-2',3'-dideoxyuridine
AU Yamaguchi, Kentaro; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Itho, Yoshiharu; Miyasaka, Tadashi
CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan
SO Acta Crystallographica, Section C: Crystal Structure Communications (1992), C48(12), 2277-8
CODEN: ACSCEE; ISSN: 0108-2701
DT Journal
LA English
AB 4'-Cyano-2',3'-didehydro-2',3'-dideoxyuridine 5'-acetate is monoclinic, space group P21, with a 14.870(1), b 5.411(1), c 8.150(1) Å. and β 95.71(2)°; Z = 2, dc = 1.411; R = 0.047, Rw = 0.046 for 1056 reflections. Atomic coordinates are given. The N-glucoside torsion angle χ has a value of -82.7(3)° in the anti range. The C4'-C5'

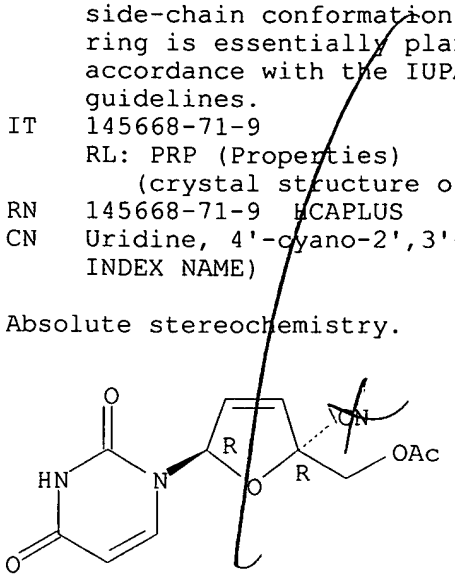
side-chain conformation is +sc with γ = 47.2(4)°. The sugar ring is essentially planar. The conformational parameters are in accordance with the IUPAC-IUB Joint Commission on Biochem. Nomenclature guidelines.

IT 145668-71-9
RL: PRP (Properties)
(crystal structure of)

RN 145668-71-9 HCAPLUS

CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1992:470218 HCAPLUS

DN 117:70218

TI Stereoselective synthesis of 4'-C-branched 2',3'-didehydro-2',3'-dideoxy nucleosides based on tin tetrachloride-promoted allylic rearrangement

AU Haraguchi, Kazuhiro; Tanaka, Hiromichi; Itoh, Yoshiharu; Saito, Shigeru; Miyasaka, Tadashi

CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan

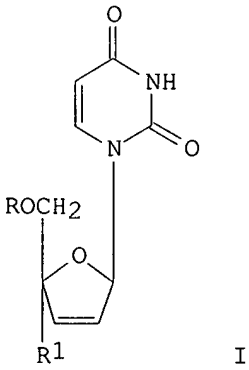
SO Tetrahedron Letters (1992), 33(20), 2841-4
CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

OS CASREACT 117:70218

GI



I

AB Based on SnCl4-promoted allylic rearrangement between a 3',4'-unsatd. uracil nucleoside and organosilicon reagents, stereoselective introduction

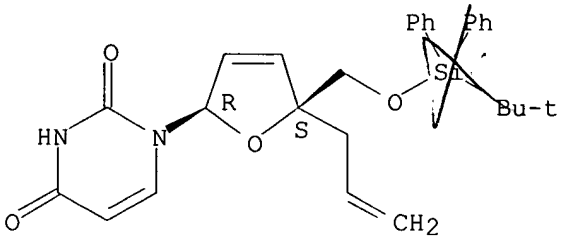
of carbon functionalities to the 4'-position has been accomplished, disclosing a new entry for a series of 4'-C-branched nucleosides, e.g. I (R = Me3CPh2Si, R1 = CH2CH:CH2, CH2CMe:CH2, CN, phenacyl), of biol. interest.

IT 142468-65-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)

RN 142468-65-3 HCAPLUS

CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

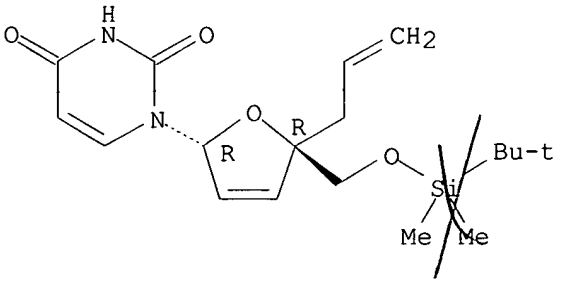


IT 142468-66-4P 142468-68-6P 142468-69-7P
142468-70-0P 142468-72-2P 142560-91-6P
142560-92-7P 142560-93-8P 142560-94-9P
142560-96-1P 142562-05-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 142468-66-4 HCAPLUS

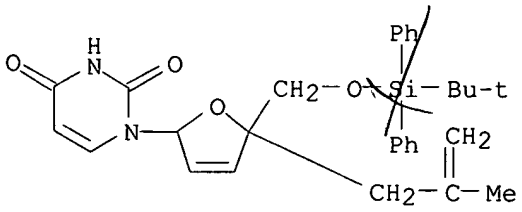
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



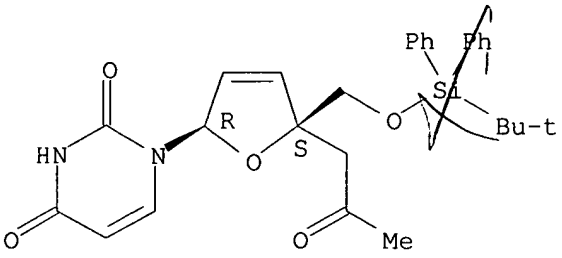
RN 142468-68-6 HCAPLUS

CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-methyl-2-propenyl)- (9CI) (CA INDEX NAME)



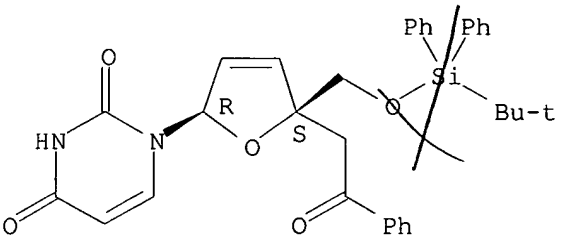
RN 142468-69-7 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



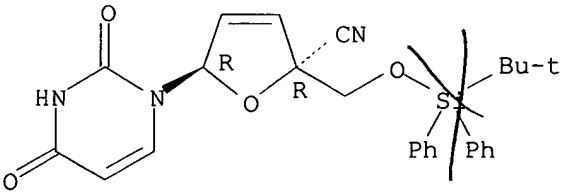
RN 142468-70-0 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 142468-72-2 HCAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

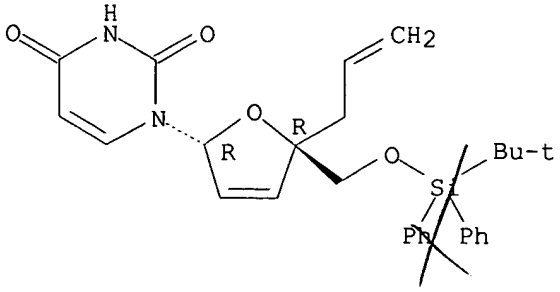
Absolute stereochemistry.



RN 142560-91-6 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]m

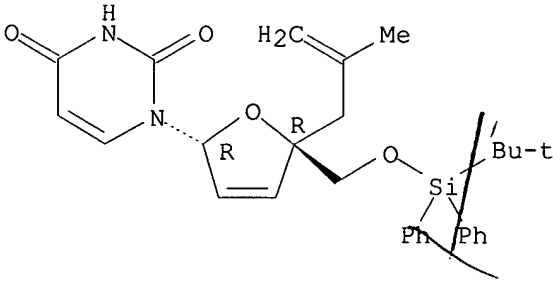
ethyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



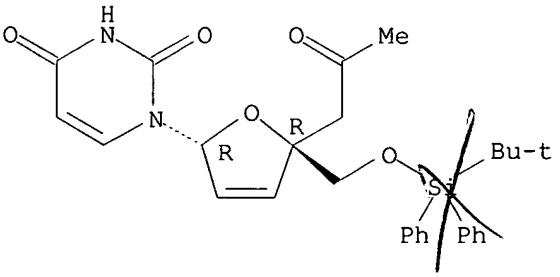
RN 142560-92-7 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-methyl-2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



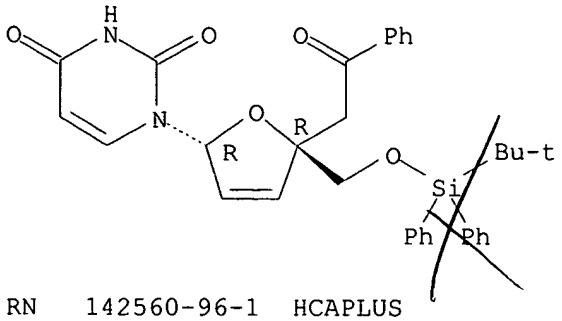
RN 142560-93-8 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxopropyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



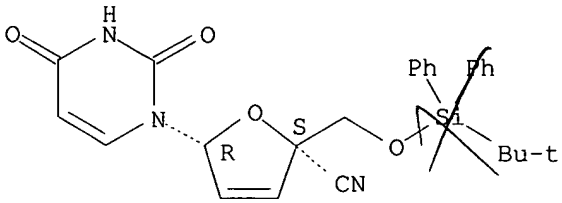
RN 142560-94-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxo-2-phenylethyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



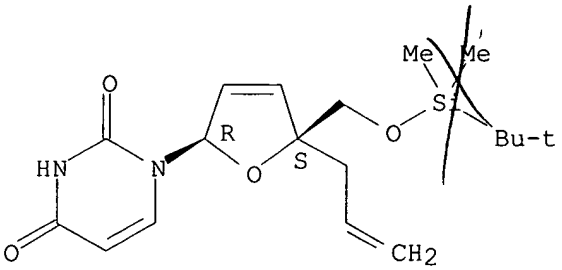
RN 142560-96-1 HCAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

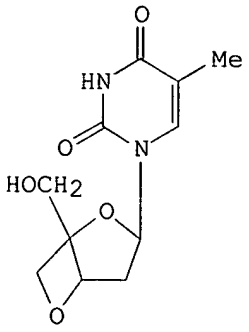


RN 142562-05-8 HCAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)dimethylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L12 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:174641 HCAPLUS
DN 116:174641
TI 4'-Substituted nucleosides as inhibitors of HIV: an unusual oxetane derivative
AU O-Yang, Counde; Kurz, Walter; Eugui, Elsie M.; McRoberts, Mary Jane; Verheyden, Julien P. H.; Kurz, Lilia J.; Walker, Keith A. M.
CS Syntex Res., Palo Alto, CA, 94304, USA
SO Tetrahedron Letters (1992), 33(1), 41-4
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
GI



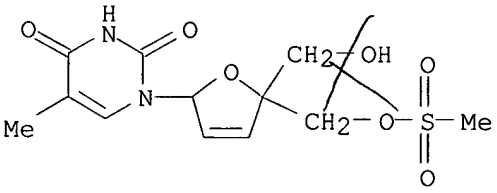
I

AB A number of derivs. of 4'-hydroxymethylthymidine were prepared The fused oxetane derivative I inhibited HIV replication in A301 (Alex) cells with remarkably low bone marrow toxicity.

IT 139926-02-6P 140145-76-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and azidolysis of)

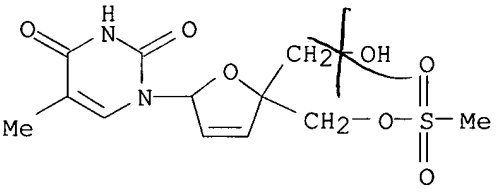
RN 139926-02-6 HCAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-[[(methylsulfonyl)oxy]methyl]- (9CI) (CA INDEX NAME)



RN 140145-76-2 HCAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)-, 5'-methanesulfonate (9CI) (CA INDEX NAME)

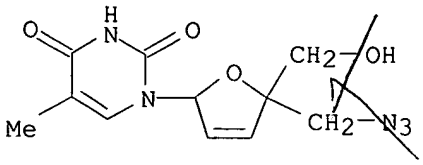


IT 139926-03-7P 140145-77-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and virucidal activity of)

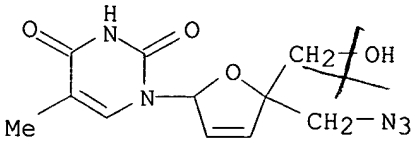
RN 139926-03-7 HCAPLUS

CN Thymidine, 4'-(azidomethyl)-2',3'-didehydro-3'-deoxy- (9CI) (CA INDEX

NAME)



RN 140145-77-3 HCAPLUS
CN Thymidine, 5'-azido-2',3'-didehydro-2',3',5'-trideoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



IT 139926-01-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, partial mesylation, and virucidal activity of)
RN 139926-01-5 HCAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)